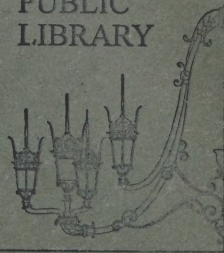


A STUDY OF COMMUNITY DEVELOPMENT
THE REVITALIZATION OF

JOHN ELIOT SQUARE



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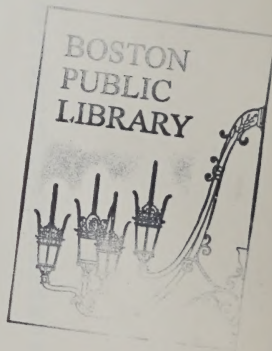
A STUDY OF COMMUNITY DEVELOPMENT:
THE REVITALIZATION OF JOHN ELIOT SQUARE

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THE ROXBURY ACTION PROGRAM, INC.

Prepared for
Roxbury Action Program, Inc.
Roxbury, Massachusetts

March 1974

by
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CCNTENTS

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Preface

This study was undertaken in direct conjunction with Roxbury Action Program, Inc. (RAP), a non-profit community development corporation. The study extended over a period of five months and its necessity grew out of an earlier study encompassing Highland Park as a whole in which John Eliot Square is located. The vehicle used to accomplish this study consisted of a joint independent studio of the Department of City and Regional Planning and the Department of Urban Design, Graduate School of Design, Harvard University. This vehicle permitted the study to be undertaken within the environs of RAP and Highland Park, thus allowing its nature and development to focus on a practical problem to which a practical solution could be formulated and implemented. The publication of this study was made possible by RAP and is intended expressly for its use. Any use of this report, or parts thereof, is not permitted without permission of RAP or its planning consultants who prepared it.

Special acknowledgement is made to Carolyn Pearson of the RAP staff for her able assistance in typing this report.

Introduction

This study is directed toward John Eliot Square, the hub of Highland Park, and the necessity of its economic development and revitalization as a means of providing the foundation for RAP's efforts to restore Highland Park as a model Black community. The square, like many inner city areas, is faced with under-utilization and stagnation and possessed with conditions and obstacles normally economically associated with non-vitalization and non-development. It is these conditions and obstacles - land tenure, disinvestment, capital resources, etc. - that must be contravened to induce market forces and mechanisms that will transform the square's land toward its "higher and best uses" that are indicative of vitality. With this renewed vitality this historic square will revert again to its historical significance as previously one of the city's foremost urban places.

The study, as a planning process, embodies Friedmann's concept of mutual learning by combining RAP's personal community knowledge with technical planning knowledge leading to transactive planning - planning and action - by which development and the revitalization of the square can take place.¹ The process of combining planning and action to facilitate the development process infers or necessitates giving direction to the actions which in turn requires formulation of strategy and implementation processes. With this in mind the study embraces the broad development views formulated by Hirschman who provides the dictum that obstacles to development generically exist without contravening actions.² The formulated actions are also derived, in part, from the concepts developed by that economist.

1 John Friedmann, Retracking America - A Theory of Transactive Planning, 1973.

2 Albert O. Hirschman, The Strategy of Economic Development, 16th edition, 1973.

SUMMARY

I. HIGHLAND PARK

Highland Park, within which John Eliot Square is located, represents one of Boston's most historical areas. This community is indicative of the earliest locational forces that produced suburbanization and movement outward from the city's core. As with suburbanization today initial settlement in then suburban Highland Park was made by the wealthy and high income groups to escape the congestion and other conditions in and near the city's core. As evidenced by Highland Park's present relative low density and stately buildings the metropolitan migrants sought open space, open air, quietness and physical segregation from the industrial processes and working class masses near the core. In addition to physical distance, Highland Park- the "Highlands"-provided a crest, spatially and visually, down upon which the inner city could be viewed and the heightened position of the upper class or wealthy could be validated. However, over time and with additional locational forces exerted from the city's core, this same initial suburbanization process passed this community by as the expansion from the core exerted itself and as new and different peoples settled within its boundaries. Repeatedly, Highland Park has provided settlement and resettlement means for families as they moved up the income scale providing a continuous declination of this picturesque area now within the confines of the city. Now settled by a population of people that is 64 percent Black and tends to be of the working class and poor level of the socio-economic structure, it is the physical residue of years of structural transformations that must now be contended with. This residue has left 39 percent of the land and 42 percent of the buildings in private absentee ownership, disinvestment that has resulted in 50 percent of its buildings in deteriorated condition, 30 percent of its land vacant or unimproved due primarily to demolition of deteriorated buildings, and all of the preceeding parameters contributing to high social and economic costs to its present residents and to the city as a whole.

Regardless of the above conditions, due to its central location within the city, topography and historicalness, Highland Park possesses the inherent potential of becoming one of the best places to live in the overall Roxbury area. The accomplishment of the overall goal of Highland Park restoration will require concerted action with concerted impact to overcome the obstacles and constraints that produce and sustain blight, deterioration and obsolescence. With this in mind Roxbury Action Program (RAP) has taken on the major responsibility of seeing that this occurs. RAP's goal, in the continued historical transformation of Highland Park, is to create a Model Black Community. Having initially concentrated on the physical development of the community as a whole, RAP recognizes that the revitalization of John Eliot

Square represents the foundation of its economic development and hence its sustaining stability as a viable community. The purpose of this planning effort and study has been to facilitate the square's revitalization.

II. JOHN ELIOT SQUARE STUDY

A. Premises of Study and Planning Process

John Eliot Square represents one of the city's most historical and picturesque squares and is one of two major sites in Highland Park that have been officially designated (five in total number) as historical sites to be listed in the National Register of Historical spaces. In addition to its historical buildings, the square, as Highland Park's hub, has been a choice site for major community facilities for many decades. It is within this light that it signifies the principal seat for economic development as a foundation for the restoration of the whole of Highland Park. However, as with Highland Park the conditions and constraints that have racked the community at large have had equal effects on this historical square. The necessary revitalization of John Eliot Square and the contravening of these obstacles is based upon three underlying premises - historical, economic and social.

Recognizing those edifices that mark the square - place, people and activities - and its vitality of an era foregone, the study attempts to provide a mutation of this historical past with that of a new people in a new time and new place who will continue this transformation and make new history. The second premise addresses those constraints and conditions that created and sustain stagnation and the necessity of inducing market forces or mechanisms that will move the square's land toward "higher and best" uses that will in turn provide the means of revitalization. This revitalization will serve the third premise of providing a foundation for the overall community restoration efforts of RAP.

In attempting to facilitate the development of the square the planning process of the study emphasizes a form of mutual learning in which the personal community knowledge of RAP is united with technical planning knowledge. This planning process is then combined with action in conjunction with city agencies and institutional bodies to evolve a form of transactive planning by which developmental and societal structural change can occur. Embodied within the study and planning effort are four major phases: (1) determination and evaluation of existing conditions, (2) logical evolution of a development concept, (3) determination of a strategy and means of implementation and (4) financial and economic feasibility determination. It is from these processes that conditions internal and external to Highland Park and the square are recognized and evaluated and from which the nature and means of revitalization can logically evolve.

B. Study Area in General Framework

In order to formulate the nature and extent of the development of John Eliot Square it was essential to have a fundamental understanding of the relationship of the square to and within the broad environmental framework. This evaluative framework related to the square from a standpoint internal and external to Highland Park and included (1) the square in general and Highland Park contexts, (2) areas of impact, and (3) major transit and street networks.

There are five major areas relating to the square that are external to Highland Park. Dudley Square forms the major node on the north. In addition to providing a major regional transit station within walking distance from John Eliot Square, Dudley Square is the major center for retail and community facilities in the Roxbury Area. Washington Park renewal area is the second major area and its expansiveness interfaces the full length of the eastern boundary of Highland Park. A conservation and rehabilitation effort, this renewal project has provided housing and upgraded community services. Thus it has a positive influence on the restoration efforts in Highland Park. The third major area consists of the Bromley Heath Public Housing Project, one of the city's largest and highly concentrated. Adjacent to Jackson Square this project area forms a southwestern node. Because of its relative distance from John Eliot Square is should provide no significant impact. Mission Hill, the fourth area, is basically middle income with the Mission Hill Public Housing project forming a sizable portion of its northern boundary. The area's retail and community services are located along Tremont Street. While present actions are being taken to stabilize the basically solid housing stock, retail outlets have declined to a marginal level and thus providing no significant influence on the square. The fifth and remaining area comprises the campus high urban renewal site. This project forms the northern boundary of Highland Park and interfaces with John Eliot Square. Under planning for some 10 years, at this point in time execution is imminent. Its major impact will result from the construction of New Dudley Street, as an arterial street which will pick up the heavy flow of regional traffic along Columbus Avenue. This will reduce or eliminate much of the through traffic in the square.

Five significant areas are identified locationally with respect to John Eliot Square in the context of Highland Park. Three of these are projected to have varying degrees of impact on the development of the square. The first area is the site occupied by the M.B.T.A. for the storage of buses. While this area will provide no immediate impact, because it is a large non-built-up site it is identified as major development potential. The second major area consists of the Kittredge Square renewal site, which represents the heart of Highland Park and overlaps with the square. The impact

of restoration efforts in this area, characterized by a high concentration of blight and deterioration, will provide the most significant and immediate impact in the area. The third area, High Fort Park, is the second major historical site in Highland Park. The historical spline which will serve to link John Eliot Square with High Fort Park with Kettredge Square as an intermediate node is a major area of impact. This spline will provide a unifying mechanism for the major historical sites in Highland Park, will reinforce the historical nature of the community and will provide a controlling element for individual development project areas in Highland Park. Connolly playground forms one of the area's major internal nodes and is the largest internal recreation space. Its peripheral location provides more an inter-community space rather than a specific service for Highland Park residents. The southwest corridor study site, the remaining area, is essentially a vacant strip of land, that was previously cleared for an eight lane highway. This area is now undergoing restudy to provide a transit-vehicular system covered with community development of the adjacent land. It is felt that the eventual development of the corridor could add or detract from the nature of John Eliot Square development and therefore it is assumed that RAP can, through the community, exert enough influence to ascertain that the nature of corridor development will be supportive of the square revitalization.

The major regional transit line which runs along Washington Street is slated to be reconstructed within the next 5 years within the southwest corridor as part of a composite vehicular system. The new orange line will provide stops at Roxbury Crossing and Jackson Square. With the completion of the new line the existing elevated line will be dismantled and removed south of Dudley Station. Dudley and Roxbury Crossing would thus provide transit stops at two opposite locations both within walking distance from the square.

C. John Eliot Square Area Analysis

The following conclusions with regard to the implications of observed events are made and result from the evaluation of several aspects of existing conditions within John Eliot Square.

The John Eliot Square Historical site provides the general basis for delimiting boundaries of the square proper. The principal streets which establish the boundary of the Square are Putnam Street at eastern edge, Norfolk Street at its southern edge, Highland and King Streets along its western side and New Dudley

Street along the northern edge. This study area is comprised of 14 acres with 108 parcels and 60 existing buildings. The site, as presently zoned, has a substantial majority of land zoned for apartment use (77%) with a small degree of retail (14%) and light manufacturing (9%). The existing zoning components are fragmented with no apparent logical relationship with themselves or the composition of the square as a whole. The revitalization of the square given the historical and economic premises, must provide a logical rezoning that will conform to the "highest and best" uses of the land determined by both the market and social mechanisms combined.

As with zoning, existing land use is fragmented with no apparent basis for this distribution. Vacant land comprises 25% of the site and neighborhood services 30%. The existing use is more a result of the under utilization of the square and the marginal uses attendant to such a condition. The effective land use distribution further indicates that 33% of the land within the square is without effective use. This non-use is composed of vacant land and land with vacant buildings. Existing building conditions provide an additional dimension, along with effective land use, to the degree to which a declining condition has been reached in the square. Slightly over 40% of the buildings in the square are in varying degrees of deterioration. This factor along with the high degree of vacant land provides a visual image that begins to engulf the natural and fundamental value of the square.

The largest segment of property, by ownership group, is vested in the hands of private absentee owners (58%). The First Church in Roxbury property, in addition to being the largest parcel in the square, accounts for 34% of this total. City owned property forms the second largest ownership category. Together the city and absentee ownership account for 76% of land owned. Even without empirical tests of this data, the correlation between absentee ownership and blighted conditions can be seen to exist in the square by comparing the spatial distributions of effective land use and building conditions with ownership patterns. This correlation indicates the full nature of disinvestment within the square. It is noted that since the city does not possess the mechanism, legally or otherwise to undertake development, when property is transferred to the city due to tax foreclosure this transfer simply results in the change in the nature of ownership of a continuous blighted property. Thus fundamental to the revitalization of the square must be a reversal of the ownership structure that will provide for substantial local control.

The most significant factor revealed in the assesment of property valuations is that the school and church properties, with no tax benefits to the city fall within the highest valuation range and comprise the largest proportion of property in that range. This factor alone indicates the necessity of transforming the economic condition of the remainder of the property in the square. The economic cost to the city resulting from the above conditions are enormous not withstanding the high social cost to Highland Park residents directly and other city residents indirectly.

The most significant factor in analyzing the gross area of existing structures was the lack of rehabilitation flexibility of the structures in the Hinge Block not including the Cox Building at 12000 square feet. While a rehabilitative approach is a desired element in any revitalization plan and strategy, given other attributes revealing use constraints, such as gross area, for a large number of non-residential buildings this constraint becomes important when considering the expansion flexibility of a given building.

The combination of narrowness, winding and sloping is characteristic of many of the streets within the square. Cars traveling at high speeds approaching the intersection of Centre and Roxbury Streets present both a hazzard and conflict to other vehicles and pedestrians attempting to cross the street. The lack of signalization, proper signage, enforcement and management at this location is characteristic throughout the area. Several Streets marked as one-way are often used as two-way streets.

The infrastructure throughout the square is in relatively poor condition. A majority of the streets and sidewalks are in need of replacement or repair. While the capacity of existing sewer and water lines is adequate for present community needs and those anticipated in the square in the future, most of these lines are in excess of 100 years old, and are of masonry or tile construction. Therefore, it will be necessary to replace them in the near future. Thus, the development concept and strategy for the square must consider this matter.

The spatial and visual aspects of the square have been considered principally in terms of building massing, open topography, land marks and views. In addition to providing a descriptive overview, the area's physical form, an attempt was made to interpret the perceptual potential of this form by making explicit its underlying meaning and structure. The significant points resulting from this investigation

are as follows. John Eliot Square Street and the First Church property, presently fenced off, is the only area with trees and a green within the square. Therefore, this highly desirable amenity has the greatest potential for public open space. The internal views of landmarks, new constructed buildings, and events are perceived to be both dynamic and informative, presenting an opportunity to sense the past history of the square and Highland Park, its present and future possibilities. At the same time external views out from the "Highland" allow the opportunity for one to perceive the place of the square and Highland Park within Roxbury and the city and its development as a whole.

This section marks the completion of the analytical phase of the study. The summary of the previous items of the analysis of existing conditions such as land use, constraints, tenure and spatial investigation, made it possible to identify existing viable areas within the square. Those areas are (1) residential section west of Highland Street in need of minor repairs, (2) Timilty School (3) St. John's Episcopal Church, and (4) The First Church. Properties in areas that fall outside of the boundaries of existing viable areas are identified as potential development project areas, because the parcels within these areas exhibit general major traits that contribute to the blight and disinvestment of property within the square.

Each parcel within the potential development project areas was evaluated in order to determine whether it should be rehabilitated for development or cleared for development. The criteria established for evaluation were derived from the analysis of existing conditions phase of this study. The rating of each parcel with respect to the criteria was dichotomized between positive and negative to simplify the evaluation process. The resulting spatial distribution of buildings that are to remain, most of which are to be rehabilitated for development, and parcels to be cleared or already vacant for development are shown in their respective project areas in Appendix 32 (also see Appendices 28 through 31).

D. Development Concept

The development concept evolves from (1) the observations and implications revealed in the area analysis, (2) consideration of general framework parameters, (3) implicit trends in the square made explicit in terms of the basic premises - historical, economic and social - established and (4) the embodiment of these elements into a model of development that reflects the project areas and buildings slated to remain. The model is composed of four elements.

The nature of existing and impending development begins to define a strong locational line of retail use primarily on the southern side of the square. This use conforms to and reinforces the premises of development and represents the first element. This retail spline begins at a point defined by existing marginal retail and the two retail outlets recently developed by RAP - a drug store and insurance office space. The spline continues along this locational line with the impending RAP-UP IIA project that will include approximately 10,000 square feet of retail space fronting on the square and initial renovations of the Garvey House which is slated for a combination of retail space and social services. The spline culminates with the circular Cox Building in the "Hinge Block", the only building in that block that is slated to remain and the only one fronting on the square.

The second element forms on the north side of the square and indicates a directional flow toward public use and defined by the existing Timilty Junior High School and historic Dillaway-Thomas House sites. This element precludes introduction of retail use since such a use would exist in relative isolation with respect to the retail spline and necessitate a use of a strongly self-sustaining nature. Transversing this directional flow is the major visual connection out of the square and toward the city center.

The third element provides a unifying element and defines itself as the potential open space existing in the square. This central element is composed, in part, of the First Church site and interfaces the major portion of the retail spline and forms a continuity with the major visual connection indicated in element two.

The fourth element is directed toward resolving the conflicting vehicular and pedestrian movement patterns.

E. Development Sequence and Strategy

Three basic premises - historical, economic and social - have been established to form the foundation of John Eliot Square revitalization. The historical premise represents the vibrant reality and residue of the past and while presently dormant it and the natural visual and spatial qualities of the square provide generic values - place, people, activities - which can serve to form a mutation of an era foregone with that of a new people in a new time that will make and continue this historical transformation. The social premise is embodied in RAP's effort to effect this transformation of Highland Park as a whole and in the primacy of John Eliot revitalization to buttress that effort. The economic premise which completes the trilogy provides the focus upon which the development sequence and strategy will unfold.

The economic premise is directed toward inducing market forces and mechanisms within the square to move its land toward "higher and best" uses, but related to the social purposes and needs of Highland Park residents. This inducement effort is considered within the views formulated by Hirschman regarding development and, in this particular instance, societal change. *

The area analysis has indicated the constraints and obstacles normally economically associated with non-vitalization. As opposed to traditional and conventional economic thought, Hirschman, a Harvard University economist, views these obstacles, i.e., tenure, disinvestment, lack of capital, etc., as "reflections of contradictory drives and of the confusion of will." Hirschman equates these obstacles and action, or the lack of it, as one. As a result, he sees the fundamental problem of development as consisting of the need to generate and energize human action in a certain direction. That is, obstacles generically exist without contravening action. Accepting this broad view the development sequence and strategy then become an integrality of action (decision making) and consequences with a framework of jointed incrementalism and inducement mechanisms. In addition to his broad view the study also embraces two of Hirschman's intermediate concepts of action or implementation strategy - unbalanced development and the puzzle theory of development.

The concept of unbalanced development, as opposed to general economic theory, is based upon the dictum that a growth system - development, societal change, etc. - proceeds under unbalanced conditions, a positive action induces another action. In community development these two separate actions are equated in terms of social overhead capital, or public improvements vs. private investment. A move by either with large enough impact, induces a move by the other.

The puzzle theory of development is related to conglomerative development as evidenced by the revitalization of the square in totality but incrementally. The concept answers the question of when during the development sequence should an attempt be made to place the most difficult piece. Taken from the ordinary process of working a jig-saw puzzle, the concept states that mental effort is not wasted in attempting to place the most difficult piece first or too early in the puzzle working process. Put the easier pieces in first to provide interfaces or reference edges within which the most difficult piece can be emplaced.

* Albert O. Hirschman, The Strategy of Economic Development, 16th edition, 1973.

The above two concepts are embodied simultaneously. The first major action in the square with concerted impact begins with the impending RAP-UP IIA project. This project will provide a \$4 million investment in and adjacent to the square and will include 140 new units of housing, approximately 10,000 square feet of retail space and initial restoration of the Garvey House for retail and social services uses. This project will expand, exponentially, RAP's initial action in the square consisting of the drug store and insurance office space. Coupled with this move will be the upgrading, comparatively, of existing marginal retail slated to remain, based upon prior consent by the owner.

As part of this initial move toward revitalization the First Church, as its role, is expected to replace the tall iron fence enveloping the major open space in the square with a lower fence more consistent with the historical definition of the church grounds. In addition, near the center of the square where the church property is basically flat, the fence is expected to remain down and the space made available for public open space use with the church retaining legal control of the property.

This development action by the private sector will require improvements in the square's infrastructure if revitalization is not to be impaired. In this light, the city is expected to leverage RAP's investment of \$4 million by approximately 10% to include (a) resolving vehicular traffic conflicts by aligning streets, (b) providing a pedestrian plaza to resolve pedestrian-vehicular conflicts, and (c) other street improvements. In conjunction with these improvements will be the creation of the Dillaway-Thomas Historical Area to include restoration of the Dillaway-Thomas House, creation of a historical park adjacent to the house and public off-street parking to service the historical area. The historical area is to be provided by a combination of city, state and federal funds. With the previous improvements the school system is expected to make specific improvements in the Timilty School site and an adjacent area.

The overall public improvements will amount to \$400,000 and can be considered in terms of a social overhead capital investment. With this in mind, a strictly conservative estimate indicates that the RAP-UP IIA investment in the square alone will generate \$150,000 in taxes yearly. These taxes will represent a return to the city of 37 percent on its social overhead capital investment.

In terms of Hirschman's first concept discussed, this action will impact and induce other private investment which cannot now proceed due to the existing general conditions in the square. The completion of the above sequence will allow RAP to proceed with the restoration of the John Eliot Hotel as a hotel conference center,

the second sequence of development. This project, with an initial definitive use study completed, will represent an additional and continuing investment in the square of approximately \$750,000. In conjunction with the hotel conference center will be the establishment of a restaurant. Minor public improvements are expected to accompany this project. Additional taxes will, in turn, be generated.

According to Hirschman's second concept, enough interface pieces will have been placed to induce or allow the emplacement of the most difficult piece in the puzzle-development of the "Hinge Block". This development by RAP will consist of restoration of the historic circular Cox Building and the construction of 32 new units of middle to higher income housing. A limited partner for this project has been identified and the investment will amount to more than \$1 million.

The remaining step in revitalization of the square will consist of upgrading the area defined by the historic Dudley Elementary School. Part of this development effort is contingent of the move of the school's facilities to a new building projected to be included in the Campus High renewal area. The school would then be transformed into a non-school, but public, use. The remaining work in this sub-area will consist of construction of some 6-8 townhouse units.

F. Proposed Development Plan

The development sequence and strategy have provided the means and actions to contravene the obstacles revealed in the area analysis. The nature and extent of activities have also been delineated. The development plan then is a representation of the development concept and the development sequence and strategy. Its implementation will provide the necessary revitalization of the square and do so in keeping with the premises - historical, economic and social - established.

G. Retail Market Analysis

The purpose of the market analysis is to validate the existence of a consumer market for the retail to be established in the square. The analysis is directed specifically toward the food market which is expected to provide the initial magnet for the square.

The market analysis consisted of the following distinct steps:

- a) determination of market trade areas;
- b) determination of demographic profile of trade areas;
- c) determination of income characteristics of market trade areas;
- d) determination of consumption allocations and expenditure patterns;
- e) determination of existing retail outlets and potential competitors;
- f) deriving a range of levels of projected sales; and
- g) determination of the nature and scope of the proposed retail to be established.

The findings in sub-summary form are as follows:

1. The primary market is defined within Highland Park boundaries, two trade areas of $\frac{1}{2}$ and $\frac{1}{4}$ mile distances from the center of the square. The secondary market is defined outside Highland Park boundaries at a maximum distance of $\frac{3}{4}$ mile from the center of the square and consisting of five trade areas.
2. The following tabulation provides a demographic profile of the market area:

	<u>Primary Market</u>	<u>Secondary Market</u>	<u>Total Market</u>
Total Population	3,914	7,912	11,826
Percent Black	66	49	55
Number of Families	804	1,691	2,495
Black Families	517	850	1,367
Number of Unrelated Individuals	658	1,491	2,149
Number of Black Individuals	401	543	944

3. The following tabulation provides a picture of income characteristics:

	<u>Primary Market</u>	<u>Secondary Market</u>	<u>Total Market</u>
Families			
Number	804	1,691	2,495
Mean Income	\$7,249	\$7,448	\$7,385
Total Income	\$5,828,196	\$12,594,568	\$18,425,575
Unrelated Individuals			
Number	658	1,491	2,149
Mean Income	\$3,505	\$3,774	\$3,690
Total Income	\$2,306,290	\$ 5,627,034	\$ 7,929,810

4. Consumption allocations and expenditure patterns were based upon household survey information for Boston's Black population. For this analysis it is assumed that no significant difference exists between Black and non-Black consumers in terms of consumption allocations. However, expenditure patterns for Blacks are not assumed to apply to non-Blacks.
5. Existing retail areas, and expected competitors, consist of four areas, Dudley Square, Washington Park Shopping Mall, Hyde Square and Brigham Circle. Dudley Square, though with many marginal outlets, represents the major retail area of the four.
6. Projected sales are based upon relating total income to consumption allocations and expenditure patterns to determine total sales per consumer item and then projecting the amount of total sales to be attracted by the proposed retail outlets in the square given the existing competitors identified. The projections are based, in general, upon the following basic criteria:
 - a. Car ownership tends to be low and consumers will tend to shop at retail outlets of closest distance given equal quality of goods, facilities and management.
 - b. Given criterion a. consumers will tend to shop at outlets with best promotional qualities and competitive prices.
 - c. Given criteria a. and b. consumers prefer to shop locally.

- d. Consumers tend to move toward, rather than away from the most dominant retail area.
- e. Drawing power is dependent upon accessibility and convenience to private and public transportation.
- f. Consumers will walk relatively short distances to outlets satisfying criteria a. and b.
- g. Black consumers, as indicated in Table III-3, prefer to shop locally.

Based upon the above criteria annual sales volumes are projected for four retail outlet types, grocery store or mini-market, drug store, variety store and restaurant. The projected sales are sub-divided by Black consumer and non-Black consumer.

As previously indicated, the primary market is defined within Highland Park boundaries. For trade area "A" in the primary market, at a radius of $\frac{1}{4}$ mile, it is projected that 75 percent of the sales provided by Black consumers will be attracted and 10 percent of the non-Black consumers. The non-Black percentage is based upon the nature of sales presently experienced by the RAP drug store now in the square which tends to be 15 percent non-Black. For trade area "B" in the primary market, at a radius of $\frac{1}{2}$ mile, it is projected that 50 percent of the sales provided by Black consumers will be attracted and 5 percent of the non-Black consumers. The total for the two trade areas defines the primary market projected sales.

The same procedure was used to determine the projected sales for the secondary market. Again, the experience of the RAP drug store was used but in this case also for Black consumers. The record of the drug store indicates that 15 percent of total sales come from consumers outside of Highland Park. The projections for the trade areas, based upon the drug store data, vary from 5 to 15 percent depending upon distance from John Eliot Square.

The following is a summary of projected primary and secondary market yearly sales:

	Grocery Store	Drug Store	Variety Store	Restaurant
Total potential market	5,195,451	649,417	2,597,725	1,298,862
Total minimum market	862,627	105,621	431,313	215,656
Total potential Black market	2,627,874	328,483	1,313,937	656,968
Total minimum Black market	784,800	95,894	392,400	196,199

7. Based upon the above projected minimum sales and a sales-space factor of \$161 of sales per square foot per year, a grocery store, or mini-market, of 6,000 square feet is proposed with means of future expansion



I. Highland Park

A. Historical Profile

The Highland Park community is located in Roxbury which is one of two areas of predominant Black settlement in the city, the second area being Dorchester. As indicated in Figure I-1 Highland Park occupies a fairly central location within the city of Boston proper. The community is some 2 to 2½ miles from the Downtown Core with fairly easy access by way of Dudley Rapid Transit Station. (Figure I-1)

As a distinct physical unit, Highland Park is defined on three of its four sides by three major city arterials, Columbus Avenue on the west, the proposed new Dudley Street on the north and Washington Street on the east. The southern boundary is composed of Richie and Marcella Streets and the Connolly Playground. Dudley Station, located on the northeastern tip of the community, provides a principal node in addition to access to downtown Boston. Jackson Square, located diagonally opposite of Dudley Square, forms a second major node at the southwestern corner of the neighborhood (Figure I-2).

Historically, settlement in Highland Park predates the American Revolution with initial settlement beginning in 1630.¹ Remnants of this early settlement remain. Though not representing the total number existing within the area, five sites have been officially designated as historical sites and are now listed in the National Register of Historical Places (Figure I-3). Principal among these five is the John Elliot Square site which includes the First Church in Roxbury (1804), Marcus Garvey House (1853), Dudley School (1873), Ionic Hall (1803), Spooner-Lambert House (1780), Dillaway Thomas House (ca. 1750), Hotel Elliot (ca. 1780) and the Cox Building (ca. 1865). Sites No. 2,3, and 4 consist of the Edward Everett Hale House (1840), Alvan Kittredge House (1836) and William Lloyd Garrison House (1850). The remaining site consists of Roxbury High Fort built in 1775 as one of a series of forts constructed throughout the city as a means of defense against the British during the War of Independence.

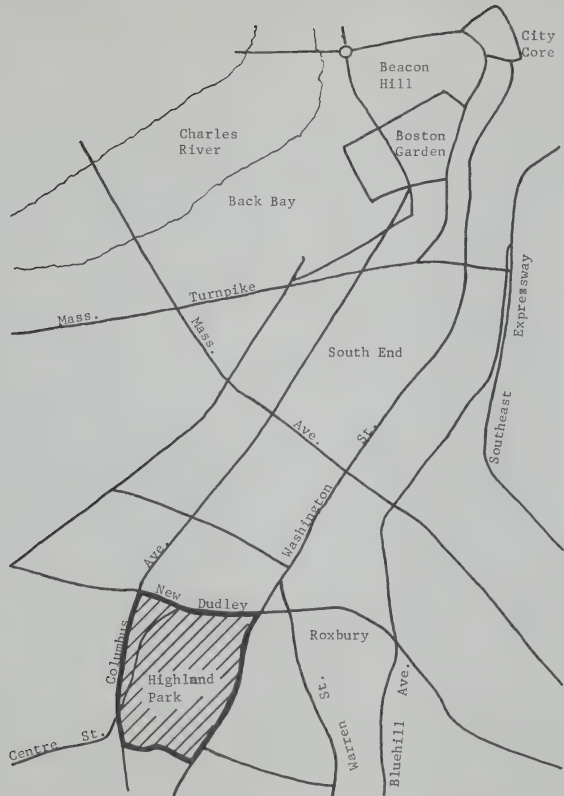
While the early settlement of Highland Park centered around Dudley and Eliot Squares, its principal development occurred during the 1825-1870 period.² This period was marked by suburbanization as a group of central city residents, seeking a pleasant residential community, bought a 26 acre parcel surrounding the High Fort site in 1825 and subdivided the land among themselves. Subsequently, in 1835 Alvan Kittredge

¹. "Architectural History of Highland Park Area." Highlands Study, Boston Architectural Center, 1971.

². Ibid.

FIGURE I-1

HIGHLAND PARK RELATIVE
TO CITY OF BOSTON



0 0.5 1 MILE



FIGURE I-2

HIGHLAND PARK



FIGURE I-3

HISTORICAL SITES



1. John Eliot Square

2. Edward Everett Hale
House

3. Alvan Kittredge House

4. William Lloyd
Garrison House

5. High Fort Park

0 200 400 600 800 1000 FT.



acquired a substantial amount of land and was signally responsible for much of the development during this period. This period was marked by a development pattern in which large parcels were subdivided and sold off as individual lots for the construction of single or double houses. This period of the suburbanization of Highland Park was described by Sam B. Warner, Ph.D., Instructor in History, Harvard University, June, 1961:³

...Here, just beyond Boston, wealthy men from the city first demonstrated the suburban style of living. With the coming of the Boston and Providence Railroad in 1835, and the Old Colony in 1845, upper middle class business men began to imitate this manner...

...Here the clustering of men of wealth produced a somewhat homogeneous suburb and allowed these men by their concentration to dominate the local government. Finally here a safe and healthy environment for women and children could be provided...

The second major period of Highland Park development occurred during 1870-1900 in which the area was marked by the intensification of land use and building. It was during this period that the change from single houses to row housing occurred. This change in housing types was also accompanied by the construction of multi-family housing or apartments as evidenced by the Hotel Eliot, previously mentioned. As indicated in the Highlands study, "the most intense and most urban development occurred at the turn of the century, when two estates on Kittredge Park were subdivided and built up with three-story brick tenements." However, most of the multi-family housing was so constructed to provide for vertical separation and individual ownership of units.

From the turn of the century the remaining vacant lots were filled and Highland Park became essentially fully developed. The remaining period, 1900 to 1970, is seen as being the change and decline of Highland Park. With the exception of a group of apartment buildings constructed in 1969, as of 1970 no new residential construction had occurred since the 1920's.⁴ The area which was early developed for suburban living was discarded for new suburban locations further distant from the central core of the city made possible by extension of the transit system and the use of the automobile. This decentralization of residential locations by the former non-Black population has transformed the neighborhood into a residential area comprised substantially of Blacks

3. Ibid.

4. Ibid.

and other minorities. Census data indicate that in 1960 Highland Park had a population of approximately 7,000 with Blacks comprising some 33 percent. Conversely, in 1970 the population had declined to approximately 4,400 with Blacks comprising some 64 percent or a reverse in racial composition during the ten-year period. Indications are that while the racial composition has changed the level of population has stabilized and is now on the incline.

As will be detailed in the further sections of this study, while the former residents have relocated to other areas of the metropolis, ownership of property has remained in original control. This movement of former non-Black residents to the newer suburbs or other city locations while maintaining ownership of Highland Park property has resulted in the type of disinvestment as alluded to by Morrison in his study of suburbanization and its resulting effects on central city neighborhoods.⁵ This process of decentralization was found to produce deterioration and property abandonment in central city neighborhoods as investment capital is withdrawn with a concomitant result of producing social obsolescence in previously sound neighborhoods.

This transformation of Highland Park from predominantly white to predominantly Black marks another period of the historical development of this neighborhood. The task faced now is to arrest decay of this historic area and to build anew where vacant or unmaintainable buildings have been demolished. As summarized in the Highlands Study, "The next chapter of the area's history is about to be written as Highland Park is rediscovered as a desirable place to live."

B. Demographic Profile

As previously indicated, Highland Park, as typical of many segments of inner city areas, has undergone a significant racial transformation. A definitive description of the present residents can be seen in Tables I-1, I-2 and I-3. Further, this information is provided in comparative form to indicate the relative population characteristics of Highland Park residents in comparison with Roxbury and the city of Boston as a whole. The substance of the information is summarized as follows:

- The population is predominantly Black in comparison to the city but in terms of Roxbury, Highland Park has a substantial non-Black population.

⁵. Peter A. Morrison, Population Movements and the Shape of Urban Growth: Implications for Public Policy, The Rand Corporation, Feb., 1972.

TABLE I-1 GENERAL AND SOCIAL CHARACTERISTICS

	<u>HIGHLAND PARK</u>	<u>ROXBURY*</u>	<u>CITY OF BOSTON</u>
<u>Population</u>			
<u>Total Population</u>	4,433	38,490	641,071
<u>Racial Composition</u>			
Black %	64	84	16
Non-Black %	24	10	80
Puerto Rican %	3	2	1
Spanish Speaking %	9	4	3
<u>Age Composition</u>			
Persons under age 18 years %	34	36	28
Persons age 62 and over %	13	13	16
Dependency Ratio	87/100	96/100	80/100
<u>Household and Family Composition</u>			
Number of households	1,461	12,544	217,622
One person households %	29	27	29
Number of unrelated individuals	309	4,806	127,201
Number of families	873	8,838	142,019
Husband-wife families %	67	56	72
With female family head %	33	38	22
Average household size	3.3	3.1	2.9
Average family size	4.2	3.9	3.6
<u>Education</u>			
With 8 years education or less %	29	32	26
College, 4 years or more %	9	4	10
Median school years completed	11.5	10.9	12.1
<u>Social Welfare</u>			
Families with Public Assistance income %	19	30	14
Families with Social Security income %	14	16	23

* Roxbury defined by census tracts 802 thru 807 and 814 thru 821
 Source: 1970 Census of Housing and Population.

TABLE I-2 LABOR FORCE CHARACTERISTICS

	<u>HIGHLAND PARK</u>			<u>CITY OF BOSTON</u>		
	<u>Black</u> (%)	<u>Non-Black</u> (%)	<u>Total</u> (%)	<u>Black</u> (%)	<u>Non-Black</u> (%)	<u>Total</u> (%)
<u>Labor Force Composition</u>						
Total labor force	61	39		13	87	
Male	51	52	51	54	54	54
Female	49	48	49	46	46	46
Married women in labor force, husband present	13	13	13	18	14	15
<u>Unemployment</u>						
Total labor force	6	6	6	7	4	4
Labor force, male	8	3	6	12	4	5
Labor force, female	4	11	6	6	3	4
<u>Nature of Employment, Male and Female</u>						
Professional, technical, etc.	9	25	15	10	18	17
Managers and Administrators	6	3	5	3	6	6
Sales Workers	1	2	2	3	6	6
Clerical and kindred workers	20	18	19	22	27	27
Craftsmen, foremen, etc.	8	14	10	10	10	10
Operatives	18	14	16	18	9	10
Transport operatives	8	-	5	4	3	3
Laborers, blue-collar workers	8	4	7	5	4	4
Farm workers	1	-	1	-	-	-
Service workers	16	20	17	21	15	16
Household workers	5	-	3	4	2	1

TABLE I-3 INCOME CHARACTERISTICS

	<u>HIGHLAND PARK</u>			<u>CITY OF BOSTON</u>		
	<u>Black</u>	<u>Non-Black</u>	<u>Total</u>	<u>Black</u>	<u>Non-Black</u>	<u>Total</u>
	(%)	(%)	(%)	(%)	(%)	(%)
<u>Family Income</u>						
Less than \$1,000	7	7	7	5	2	3
\$1,000 to \$3,999	30	21	27	24	11	13
\$4,000 to \$4,999	6	5	6	9	5	6
\$5,000 to \$5,999	4	5	4	9	6	6
\$6,000 to \$7,000	18	12	16	15	16	14
\$8,000 to \$9,999	11	21	15	13	15	15
\$10,000 or more	24	29	25	25	45	43
<u>Families With Income Below Poverty Level</u>						
Percent of all families	24	24	24	25	9	12
With female family head	52	47	51	73	47	57
Receiving public assistance	25	53	34	61	37	46
 <u>Mean Family Income</u>			\$7,382			\$10,272
 <u>Median Family Income</u>	\$6,312		\$6,639	\$6,346		\$ 9,133

- As with both Roxbury and the city the elderly and the young comprise almost 50 percent of total population. A dependency ratio can be obtained by equating these two sub-groups to the 18-61 sub-group.⁶ While Roxbury has a high dependency ratio of 96 "dependents" per 100 people in the "productive" ages, the ratio in Highland Park tends to merge toward that of the city.
- In terms of household composition each of the three entities tend to have a similarly high percentage of one person households. In terms of Family composition Highland Park again approaches the city percentage of husband-wife families which denotes a strong indicator of stability. Data indicate that the remainder of families in Highland Park has a female as family head, the percentage being a third higher than that for the city but lower than Roxbury.
- In terms of education there is no significant difference in educational attainment in Highland Park and the city as a whole. For the population of 25 years of age and over Highland Park residents are at the mid-point between Roxbury and the city in terms of persons with 8 years of education or less. On the other hand, the number of college educated in Highland Park tends to reflect that of the city and is more than twice the percentage for Roxbury. The comparatively high median number of school years completed denotes an educational resource comparative to the city and the national level. This figure also reflects a state in which persons with higher levels of education more than counter-balance the number of persons with 8 years of education or less.
- 19 percent of Highland Park families receive public assistance income. While this figure is 36 percent greater than that for the city, it is 36 percent less than that for Roxbury. The number of families receiving social security income is similar for Highland Park and Roxbury residents. However, while both of these population segments have 19 percent less elderly residents than the city as a whole, their number of families receiving social security income is approximately 35 percent less than that for the city as a whole (assuming a relationship exists between family social security income and elderly persons).

⁶. R.C. Atchley, Using Population Data in Community Planning, 1966.

- The composition of the labor force by sex is similar for Highland Park and the city as a whole with no significant differential between Black and Non-Black workers. City-wide males exceed females by 8 percent and in Highland Park by 2 percent. This differential is due to population composition. City-wide females 16 years and over exceed like males by 25 percent while in Highland Park such females exceed males by 33 percent for a differential by sex of 8 percent.
- In terms of unemployment, significant differentials exist by race and the differential is compounded when the variance within race by sex is considered. City wide the unemployment rate of Blacks as a whole exceeds non-Blacks by 75 percent. When sex is considered, the unemployment rate of Black males is 3 times that of non-Black males while the rate of Black females is 2 times that of non-Black females. While the unemployment rate of Black males is 2 times that of Black females, the rate for non-Black males is only 1/3 greater than that for non-Black females. Within Highland Park the overall unemployment rate is some 2 percentage points greater than the city-wide rate but this higher rate is further compounded by the race-sex differentials described for the city as a whole.
- The overall nature of employment in Highland Park reflects that of the city in some forms of work and diverges in others. The percentage of professionals, managers and administrators and craftsmen in the community tends to represent the percentage for the city as a whole. This relationship also complements the higher education attainment relationship that was previously noted in terms of Highland Park residents vis a vis the city. Conversely, operatives and laborers are 60 and 75 percent, respectively, higher in number in the community than for the city. Clerical workers and sales workers provide additional 35 percent and 66 percent differentials for the city workers vs. Highland Park residents. At the lowest level of employment, service workers, the Highland Park and city rates are essentially the same. In terms of race, percentages of workers per classification differ significantly between Blacks and non-Blacks both for the city and Highland Park in a majority of the eleven classifications.
- Within Highland Park the income distributions by race tend to have a counterbalancing effect. Non-Blacks tend to have higher incomes at the lower level (zero to \$4,999) and at the higher level (\$8,000 or more) while Blacks tend to exceed non-Blacks in the \$5,000 to \$8,000 range. Conversely, on a city-wide base a significant differential exists between Black and non-Black incomes with a sharp divergence at the \$8,000 and greater level. Income levels for Highland Park residents tend to reflect the city at the \$4,000 to \$9,999 range. Sharp differentials exist at incomes

less than \$5,000 and at incomes of \$10,000 or more. These comparative distributions by sector and race can be seen in Figure I-4.

The above demographic characteristics indicate a wide range of socio-economic groups within Highland Park. While there exists within the community families and individuals who occupy disadvantageous positions with respect to education, employment and income, data indicate the nucleus of a heterogeneous socio-economic structure which lends itself for reinforcement and which portends the potential for a viable community.

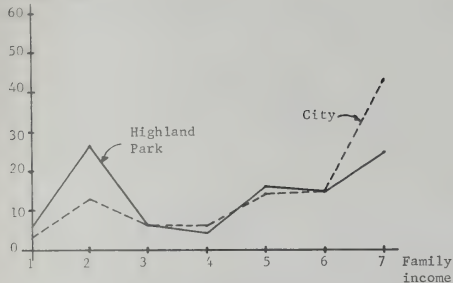
C. Environmental and Physical Profile

Highland Park represents one of Boston's most historical residential communities. Its topography indicates that it has been and, potentially, remains one of the city's most picturesque. While the principal asset of this area, notwithstanding the topography, location, etc., has been and is its historical buildings, it is this age factor that must now be contended with. This age factor is further compounded by the disinvestment of absentee owners who have maintained control of original property.

Environmental and physical characteristics will be considered in terms of zoning, land use, residential building types, construction of buildings, dwelling unit occupancy, building and dwelling unit conditions and general environmental conditions. This data, in addition to providing a descriptive overview of the neighborhood, will allow a measurement of the neighborhood's fundamental physical foundation and the degree and nature of restorative efforts necessary to reestablish the area as a desirable place in which to live.

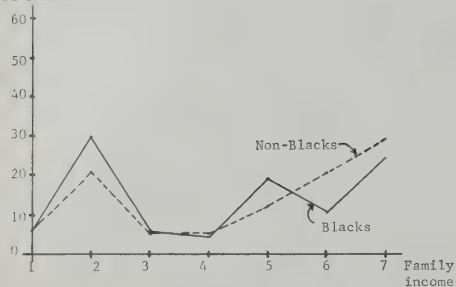
- In terms of officially sanctioned use of the land, the majority of the interior of the community is zoned for residential use with non-residential use occurring around the periphery along major arterials. The residentially zoned area is zoned roughly 60 percent R8 and 40 percent H1. The R8 area permits any type of dwelling units constrained only by the floor area ratio of the building vs. site. The H1 area is basically limited to 1 and 2 family row housing with a maximum height of three stories. Other types of dwellings are permitted in the H1 zone but with the constraint of a 100 percent increase in required lot size.
- A good measuring index of a neighborhood is its land use index or land use distribution. The following tabulation is an approximate breakdown of the use of the

Percentage
Of Families



HIGHLAND PARK-CITY

Percentage
Of Families



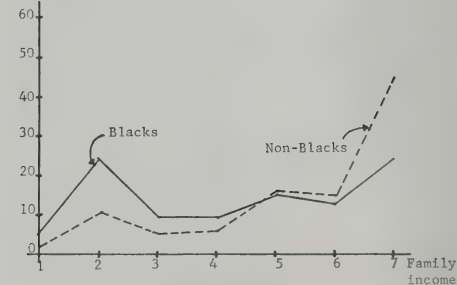
HIGHLAND PARK

FIGURE I-4

INCOME CHARACTERISTICS

1. Less than \$1,000
2. \$1,999 to \$3,999
3. \$4,000 to \$4,999
4. \$5,000 to \$5,999
5. \$6,000 to \$7,999
6. \$8,000 to \$9,999
7. \$10,000 or more

Percentage
Of Families



CITY - WIDE

170 acres of the Highland Park land:

	Acres	%
Residential	65	38
Retail	4	3
Neighborhood Services	7	4
Public Facilities	19	11
Industrial	2	1
Public open space	12	7
Vacant or unimproved land	39	23
Streets and public ways	22	13

Significant non-residential uses can be seen in Figure I-5. Accompanying the land use are the following salient features:

Number of parcels	1,200	
Vacant parcels		30%
Number of buildings	840	
Wood buildings		51%
Masonry buildings		49%
Number of residential buildings	720	
One-family		24%
Two-family		22%
Three-family		44%
Four-family		6%
Five or more		4%
Number of dwelling units	1,857	
General vacancy rate		1.27%
*Effective vacancy rate		1.03%
Mean net population density	29 persons per acre	
Mean net dwelling unit density	36 units per acre	

- General environmental conditions in a residential community is a major factor in determining its desirability as well as attractiveness to potential residents.⁷ This index is composed of the incidence of vacant or unimproved parcels, parcels

* Effective vacancy rate is determined by deducting the number of vacant units existing in deteriorated buildings from the total number of vacant units.

⁷ Environmental conditions were generalized from data established by the study entitled A Study of Housing and Community Development: Highland Park, 1973.

FIGURE I- 5

HIGHLAND PARK



1. Retail
2. Educational
3. Social and Institutional
4. Religious
5. Industrial
6. Public Facility
7. Recreation and Open Space

0 200 400 600 800 1000 FT.



lacking environmental maintenance, number of deteriorated buildings and number of vacant or abandoned buildings.⁸ The extent of these conditions is seen in the following tabulation:

Vacant or unimproved parcels	30%
Parcels lacking environmental maintenance	20%
Deteriorated buildings	50%
Vacant or abandoned buildings	15%

- While general environmental conditions provide a good indication of the overall character of a residential community it is the condition of individual buildings that determines the nature and extent of measurable deterioration and blight within a neighborhood.⁹ Survey data indicate the following existing conditions:

Sound Buildings	11%
Buildings needing minor repairs	39%
Buildings needing major repairs	31%
Substandard buildings	19%

An exterior survey cannot denote the condition of such important building components as plumbing facilities, heating plants or electrical systems. The positive condition of these elements for given buildings could push the incidence of deteriorated buildings downward or on the contrary, if negative could push the incidence of buildings needing minor repairs downward. As previously indicated 95% of the buildings in the community are constructed either of wood or masonry. In terms of building conditions, of the buildings constructed of masonry 43 percent are sound or needing minor repairs and 57 percent are deteriorated. In comparison, of the buildings constructed of wood 60 percent are sound or needing minor repairs and 40% are deteriorated.

⁸ Environmental maintenance was measured in terms of presence of trash, abandoned automobiles, overgrown vegetation, etc.

⁹ Buildings were individually surveyed and rated in terms of the conditions of the foundation, walls, roof, secondary components (windows, doors, etc.) and exit provisions. Rating procedures were similar to those used by renewal agencies.

- While the degree of deteriorated and blighted buildings indicates the general physical and environmental conditions within which a given people tend to live it is the specific condition of individual dwelling units that begin to provide a measure of individual living conditions. Data provide the following measurement of this index as a percentage of total number of dwelling units:

Dwelling units in sound buildings	11%
Dwelling units in buildings needing minor repairs	41%
Dwelling units in buildings needing major repairs	29%
Dwelling units in substandard buildings	19%

A distinction was previously made between general vacancy rate and effective vacancy rate in terms of vacant deteriorated units. Of the 396 vacant units 139 or 35 percent exist in deteriorated buildings.

D. Property Ownership and Valuation

Renter occupancy, as in the city as a whole, is exceptionally high throughout the area. Census data indicate that average renter occupancy is 73 percent city-wide and 72 percent within Highland Park. A further detailed assessment of the nature of property ownership in Highland Park has been made ¹⁰. Property ownership by resident owner, absentee owner, and city was determined by cross referencing city property ownership and assessment records with an official listing of residents compiled by the city elections department. Since the study covered 38 percent of the net land in Highland Park the results are generalized for the entire community as follows:

Property	Resident Owned	Absentee Owned	City Owned
Parcels	37%	39%	24%
Buildings*	49%	42%	9%
Dwelling units	42%	51%	7%
Deteriorated Property			
Buildings	34%	51%	15%
Dwelling units	33%	56%	11%

¹⁰. Jim Hall, "Property Ownership" (An Addendum to A Study of Housing and Community Development: Highland Park, 1973)

* Excludes buildings of public use nature.

The above tabulations indicate that non-resident owners control almost 2/3 of Highland Park land and more than half the buildings and dwelling units. When the dwelling units owned by residents but rented (multiple owners) are considered the renter occupancy percentage begins to reflect the census figure. While absentee ownership in Highland Park is high, property ownership is not highly concentrated but rather dispensed over numerous individual owners in contrast to some urban areas. Data indicate that the 1,200 parcels are owned by some 600 individual owners with an average of 50 percent dispersal of ownership which indicates one owner of two parcels on the average.

The ownership breakdown also indicates that absentee owners, private and public, contribute measurably to the blighted conditions existing within Highland Park. When the data are empirically examined by CHI Square test a moderate positive correlation was found to exist between deteriorated conditions and absentee ownership at a 99 percent probability or an indication that this relationship could occur by chance only 1 out of 100 times. Though statistics do not presently exist a strong intuitive, a priori, case exists for assuming that a large number of deteriorated properties now owned by residents was in deteriorated condition when title was exchanged.

In terms of property valuation the cited study indicates that city records provide the following comparative valuations by nature of ownership: for 38 percent of Highland Park property:¹¹

	Resident Owned	Absentee Owned	City Owned
Total Square Feet	907,840	1,044,622	474,491
Total Assessed Valuation	\$1,001,200	\$1,382,616	\$357,250
Mean Valuation Per Parcel	4,235	6,475	
Mean Valuation Per Building	3,051	5,582	
Mean Valuation Per Dwelling Unit	1,986	1,602	
Mean Valuation Per Square Foot	1.23	1.32	0.75

The above assessment figures indicate a differential of approximately a third of a million dollars between resident and absentee owners. However, the difference is due to a larger amount of land and larger buildings owned by absentee owners. For residential buildings, on the average, a given absentee owned building contains 2.76 dwelling units while such buildings owned by residents contain 1.94 dwelling units.

¹¹ Ibid.

This disparity is further clarified by the mean valuation per square foot which indicates a closer correlation between amount of land owned and the amount of assessed valuation. The total square feet figures indicate that, proportionately, absentee owners control 8 percent more land than resident owners and are assessed 6% more than resident owners in terms of total amount of land to total amount of assessment. Thus, on the contrary, absentee owners are assessed less at a 2 percent differential than more. As noted, the average assessment per dwelling unit indicates that on the average residents are assessed some \$350 more per dwelling unit than absentee owners. This would infer, among other things, that assessment is based more upon the building than the number of units in the building.

The assessment data also indicate that while the city owns over half as much land as the resident owners the land owned by the city is assessed at less than one third (31 percent) of that of the resident owners¹². The low assessment of city owned property is due to (1) 79 percent of the city owned buildings being deteriorated and (2) larger amounts of vacant parcels owned by the city which became vacant due to the demolition of deteriorated buildings. Thus, while the city has acquired and is acquiring many disinvested properties previously owned by absentee owners, this simple change of ownership has simply provided a change in the nature of absentee owner of blighted properties, vacant and non-vacant.

Examination of data and spatial distributions indicate discontinuities in terms of assessed valuations and condition of buildings by nature of construction. In general, higher valuations tend to accompany non-wood or masonry buildings. In terms of construction of buildings it has been seen that a majority of the buildings in the study area, 51 percent, are constructed of wood. While probably theoretically and practically unexpected in terms of wood vs masonry as materials, deteriorated structures are more prevalent among masonry buildings than among wood buildings. While this unexpected occurrence has been determined by statistical analysis and comparison of spatial distributions of wood buildings and deteriorated buildings this conclusion is further supported by empirical test. A CHI Square test was used to determine if a relationship existed between the material of a building and deterioration. The results of this test indicate that this relationship exists at a 99 percent probability or, based on the survey data, could occur by chance only 1 out of 100 times. Given the correctness of the survey techniques, the correlation previously indicated between masonry buildings

¹² Excludes land of a public use nature.

and higher property valuations would tend to indicate that assessments are being made on the expected condition of masonry buildings rather than a more than casual observation of their conditions. The dichotomy of lower valuations of better conditioned wood buildings would also imply a long period between city valuations in which masonry buildings have undergone further deterioration while the condition of wood buildings have held steady or improved.

The environmental and physical conditions and ownership patterns as identified and enumerated present the primary challenge to the restoration of Highland Park. While existing in varying degrees throughout the community these conditions are principally concentrated in the Kittredge Square renewal area. This renewal project, slated to commence within the year, and others will be delineated in following sections. These efforts at reversing disinvestment in the area are crucial since the restorative effort is fundamentally based upon encouragement of resident ownership. Empirical studies have provided some initial evidence that the residential character of a neighborhood is a major determinant of choices of residential location by people.¹³ The study by Kain and Quigley found that basic residential quality, dwelling unit quality, quality of proximate properties, non-residential land use and average structure quality substantially influenced the choice of residential location. This study found that environmental quality (absence of blight) proved to be highly significant to those seeking residential ownership and indicated that a home buyer buys a neighborhood as well as a house.¹⁴ In terms of Highland Park the high incidence of vacant or unimproved land, parcels lacking environmental maintenance, and deteriorated structures can present to a potential home buyer such a negative picture that the future and potential location benefits of residing in this historical and once picturesque residential area are distracted and lost.

The continuation of highly negative environmental conditions will also provide a major obstacle in the attempt to influence or encourage additional middle to higher income Blacks home purchasers to locate in Highland Park. Those Blacks who possess the most able and independent means to purchase homes and who would compose a qualitative addition as well as stabilizing element, can be expected to be selective in determining residential location. A study of several Boston homeownership programs for Blacks (not necessarily of independent means) has found that the program with wide locational choices was the most successful.¹⁴ This study also found that an effective demand for home ownership

13. John F. Kain and John M. Quigley, "Measuring the Value of Housing Quality," Journal of the American Statistical Association, June 1970.

14. Justin Gray Associates, Vol. 1, Housing Needs and Priorities: "Housing Development Issues" and "Home Ownership in the Model Cities Area: Can It Work?"

did exist among Blacks vs the usually purported "need" or "simple demand." Given the existence of this effective demand among city Blacks and the constraint of lack of wide residential location choice in the RAP program the incidence of negative environmental conditions could become crucial in tapping this existing market. Efforts must also be made to definitively establish to what extent mortgage financing is available to individuals for purchases and rehabilitation or new construction in this area. A "red lining" policy or high insurance rates vis i vis Highland Park would add additionally negatives impacts on potential homeowners and thus additional negative impacts on restorative efforts.

Regardless of the above conditions, Highland Park could become one of the best places to live in the overall Roxbury area in which it is located. That this prospect strongly exists will become more apparent in remaining sections as potential positive impacts are explored and made explicit. With this in mind, Roxbury Action Program (RAP) has taken the major responsibility for seeing that this occurs. While the real impact has not yet been felt, the results of the RAP program and imminent development projects should, in the near future, begin to inject new life and activities which will provide a stimulus for others. Central among these will be the revitalization of John Eliot Square. Other areas, internally and externally, should aid the RAP effort. It should be at that point that RAP's goal of developing a "Model Black Community" should be on its way toward attainment.



ALVAH KITTREDGE HOUSE IN EARLY SUBURBAN HIGHLAND PARK

Courtesy of Print Department, Boston Public Library



ALVAH KITTREDGE HOUSE TODAY AS HEADQUARTERS OF ROXBURY ACTION PROGRAM, INC.



II. Roxbury Action Program (RAP)

Roxbury Action Program (RAP) has undertaken the task of preventing further decay of Highland Park and restoring it to its original place as a viable and desirable community in which to live. The history of RAP and its relationship to Highland Park has been fully documented in case histories and through its own annual reports.

RAP had its beginning in 1964 as a component of the American Friends Service Committee's Metropolitan Housing Program. Its initial location was at a storefront office on Blue Hill Avenue with an initial objective of gathering information and organizing residents around tenant problems. During the remaining two years it was eventually realized that "reducing tensions between owners and tenants would solve neither housing nor community problems and that A.F.S.C. served too wide an area with too small a staff.¹⁵ The following year in 1967 a new relationship was negotiated and the present form of RAP came into existence.

RAP, as presently constituted, is a community based, non-profit, tax-exempt corporation engaged in housing and other community development programs. As a newly constituted entity RAP began to formulate and implement a new approach to housing and community problems. Central to this approach was the idea that a service orientation would not accomplish the intended goal and that it must help people to solve their own problems. With this theme in mind RAP moved its offices to Highland Park which became its target area as subsequently sanctioned by the Boston Model Cities Program. It is presently located in the Alvan Kittredge House.

The overall goal of RAP in Highland Park is the development of a model Black community. This goal is embodied in the following objectives:

1. To prevent Highland Park from becoming another neighborhood dominated by speculators during the course of development.
2. To organize Black citizens through an effective community organizing staff.
3. To own or control the land in Highland Park.

In pursuit of this goal, RAP has eleven full time staff and six part time plus a number of volunteers during a given year. Through formulated policy its full time

¹⁵. Lincoln University, Case History: Roxbury Action Program, Inc., Summer of 1971. (As edited by RAP).

staff and governing board are composed of neighborhood residents. As a means of accomplishing the previously stated objectives the following six areas constitute the present program:

1. Community organization to reach the people.
2. Housing development and management.
3. Physical and social planning.
4. Business planning and economic development.
5. Fund raising.
6. Administration of grant funds.

The implementation of this program is evident in the following activities: (1) development of an exterminating company to service local residents, (2) ownership of the Marcus Garvey House which presently houses a continuing education drop-in center, child day care center, rehabilitation program for delinquent teenagers and provides space for future community services, (3) a drug store located in John Eliot Square, (4) on-going development of physical and business planning for the area and (5) many community participation programs during the course of the year. However, principal to RAP's program implementation have been property acquisition and housing development.

RAP presently has acquired and owns eleven individual parcels. In addition, housing development as shown in Figure II-1 consists of the following four projects:

RAP-UP I

This project, now completed and occupied, consists of 33 units of rehabilitated housing on scattered sites. Initially financed by the Massachusetts Housing Finance Agency, the project has subsequently acquired HUD 236 Subsidy and now provides housing for both low and moderate income residents. Though initially intended as a home ownership cooperative, initial tenants have indicated no present desire for such status. This project represented an investment of approximately \$500,000.

RAP-UP IIA

This project consists of the renovation of the Garvey House, 60 new units of elderly housing, 80 new units of family housing and 10,000 square feet of new commercial space. This project, expected to begin the revitalization of John Eliot Square, is expected to commence during the spring of 1974 and will represent an investment of approximately \$4,000,000.

FIGURE II-1

ROXBURY ACTION PROGRAM
DEVELOPMENT PROJECTS

1. RAP-UP I
2. RAP-UP IIA
3. RAP-UP IIB
4. RAP-UP III



0 200 400 600 800 1000 FT.



RAP-UP IIE

This project is completed and undergoing rent-up and consisted of the re-habilitation of 50 housing units and two commercial spaces. The drug store and one additional commercial space will complement RAP-UP IIA in the initial steps toward revitalization of John Eliot Square. This project represents an investment of approximately \$1,000,000.

RAP-UP III

This project is in the planning stage and will consist of 100 housing units of new construction. This project is expected to commence during 1974 and will represent an investment of some \$3,000,000.

While the overall intent of the program is to develop a cooperative type arrangement with the residents of Highland Park, RAP presently manages all properties including units leased to the Boston Housing Authority. In addition to the RAP effort and success in housing development the Boston Housing Authority, through its Infill Program, is providing scattered site public housing in the Highland Park area.

In charting its future courses of action RAP provides a continuous effort to update its base of information, provide re-evaluations and assessments and further delineate planning policy. The intent of this study is to aid in this process.



III. JOHN ELIOT SQUARE STUDY

A. Purpose and Process

As previously indicated John Eliot Square is one of five Highland Park historical sites listed in the National Register of Historical Places in terms of historical buildings and has been a choice site for major community facilities for many decades. However, the disinvestment process that has racked Highland Park as a whole has had equal effect on this historical square. Thus, in addition to restoring and maintaining its historicalness, this site represents a principal seat for economic development as the hub of Highland Park and as one of Roxbury's, potentially one of the city's, major squares. Thus, the necessary revitalization of the square is based upon three basic premises: historical, economic and social.

Historical - to provide a successful mutation of the past and present by restoring and maintaining and thus recognizing the edifices that mark the evolution of a place and people of another era but combined with the recognition and reflection of a new people in a new time who will continue that evolution and thus make new history.

Economic - to eliminate the high social cost of under-utilization of the square due to a lack of activities or marginal activities that exist by inducing market forces or mechanisms that will move the square toward the "higher and best uses" of its land that presently provide little or no economic benefits to Highland Park or to the city.

Social - to provide a foundation and support for Roxbury Action Program's efforts of community development to restore Highland Park as a viable community - John Eliot Square must provide the hub of activity. Just as there can be no Boston without a viable "downtown" there can be no Highland Park without a viable John Eliot Square.

With this in mind, the purpose of this study and the major task is to formulate a development plan with an accompanying strategy and means for implementation in keeping with the above premises.

The process of the study and planning effort is based upon four major phases (1) determination and evaluation of existing conditions, (2) logical evolution of a development concept, (3) determination of a strategy and means of implementation and (4) financial and economic feasibility determination. Embodied in these three major

phases are the following detailed steps:

- (a) Evaluation of study area within the general context
- (b) Identification and examination of major impact areas in terms of economies and diseconomies.
- (c) Evaluation of major transit and vehicular mechanisms.
- (d) Identification and evaluation of land use constraints and property owner-valuations.
- (e) Evaluation of within site infrastructure and circulation-pedestrian and vehicular
- (f) Visual and spatial evaluation
- (g) Identification and evaluation of potential project areas
- (h) Formulation of development concept
- (i) Formulation of development sequence and strategy
- (j) Evolution of development plan
- (k) Retail market analysis and housing financial analysis.

Fundamentally, this study approaches the planning process based upon development planning rather than comprehensive planning and attempts to fuse within it the major concept denoted by Friedmann.¹⁶ As an anti-thesis of comprehensive planning Friedmann posits transactive planning as the prospect for urban development in which planning and action are combined to produce societal change. While Friedmann provides a solid theoretical framework toward which planning can move this study attempts to take several of the concepts and apply them to a practical framework. The inability of comprehensive planning to effect substantially immediate societal structural change, ie., property disinvestment, local control, etc., has been due to the generic nature of the process. As opposed to transactive planning, comprehensive planning as a process has long been characterized by (1) an encompassing span over a long period of years, (2) Global view, (3) reliance on central control and (4) a single standard of public interest - non-appropriate for a democratic society. As an approach Friedmann sees the failure of comprehensive planning being based upon the following parameters: (1) failure to recognize that perceptions and values are formed by location of observer in a given social mix - leading to clashes of social interests, (2) failure to recognize that organizations are dependent upon external forces which sometimes cannot be controlled or foreseen, (3) fragmentary knowledge of planners (4) work with models of balance inconsistent with the dictum that accelerated change calls for changes in institutional arrangements and finally, (5) comprehensive planning is inconsistent with imperatives of action - societal actions tend to be focused on limited objectives.

¹⁶. John Friedmann, Retracking America - A Theory of Transactive Planning, 1973.

Ultimately, the planning process of this study as a form of transactive planning - planning and action or execution - is based upon the fusion of the personal community knowledge of RAP with technical planning knowledge in which both are related to institutional bodies to evolve an innovative plan in which unbalanced development is explicitly assumed. The premise of unbalanced development will be fully explored in a following section.

B. General Framework Parameters

A fundamental understanding of the relationship of the square to and within the broad environmental framework is central to formulating the nature and extent of its development. This evaluative framework relates to the square from a standpoint internal and external to Highland Park and includes (1) the square in general and Highland Park contexts, (2) areas of impact, and (3) major transit and street networks.

1. John Eliot Square in General Context

The square as it relates to major areas external to Highland Park can be seen in Appendix 1. Dudley Square forms the major node on the north. In addition to providing a major regional transit stop within 5 to 10 minutes walking distance from John Eliot Square, Dudley Square is the major center of retail and community facilities within the Roxbury Area. Dudley Square then provides a substantial identification link and its perceived impact will be evaluated in following paragraphs. Washington Park renewal area is the second major area and its expansiveness interfaces the full length of the eastern boundary of Highland Park. A conservation and rehabilitation effort, this renewal project is virtually completed and in addition to providing housing, community services were upgraded. The solidification of this area has provided a positive relationship and interface with the restoration efforts in Highland Park.

The third major area consists of the Bromley Heath Public Housing Project, one of the city's largest and highly concentrated. Adjacent to Jackson Square, this project area forms a southwestern node. This essentially captive market would benefit from and have impact, positively and negatively, on development in that particular area, however, its relative distance from John Eliot Square should provide no significant impact. Mission Hill, the fourth area, is basically a middle income area with the Mission Hill Public Housing project forming a sizable portion of its northern boundary. Tremont Street dissects the two income groups and it is along this arterial

that the area's convenience retail and community services are located. While action is being taken to stabilize the basically solid housing stock, retail outlets along Tremont have declined to marginal or sub-marginal condition.

The fifth and remaining area comprises the Campus High Urban Renewal site. This project forms the northern boundary of Highland Park and interfaces with John Eliot Square. Under planning and development consideration for some 10 years, at this point in time execution is imminent. Campus High, as it specifically relates to John Eliot Square, will be discussed in following paragraphs.

2. John Eliot Square in Highland Park context

Five significant areas are identified locationally with respect to the study area with three of these projected to have varying degrees of impact on the development of the square (appendix 2). The first area is the site occupied by the Metropolitan Bay Transit Authority. The site is principally used as a vehicle storage area for this quasi-public body. This particular area should provide no immediate or foreseeable impact. It is identified as major development potential. Should this site be relinquished for Highland Park development it will provide the largest unit of non-developed land in the community. In addition, part of this large non-build-up site could represent the potential means of providing open space in the northern part of Highland Park which is now lacking. Since the site interfaces, in part, with the square any such public open space could be linked with John Eliot Square.

The second major internal area consists of the Kettredge Square renewal site. This area represents the heart of Highland Park and overlaps with the square. Blight and deterioration are highly concentrated in this area and the impact of its restorative efforts will be made explicit in following paragraphs. The third area, High Fort Park, is the second major Historical Site in Highland Park. Its specific relationship to John Eliot Square will be later treated in terms of major impact areas. Connolly Playground forms one of Highland Park's major internal nodes and is the largest internal recreation space. Its peripheral location provides more an inter-community space rather than a specific service for Highland Park residents as a whole. While providing a major identity node its placement is converse to the center of Highland Park where youth tend to be concentrated. The southwest corridor study site, the remaining area, is essentially a vacant strip of land. This site, previously cleared for an 8 lane highway linking the inner city to the metropolitan route 128 loop, is now undergoing

restudy to provide a transit-vehicular system coupled with community development of the adjacent land. The projected impact of this strip of land will be treated in the following section.

3. Areas of Impact

Six specific areas, as indicated spatially in appendix 3, are identified in terms of their potential for providing major economies or diseconomies with respect to the development of the square. The activities presently or potentially existing in these areas can be expected to provide positive or negative spill-over effects into the square. Three areas are internal to Highland Park and three are external.

The Kittredge Square Renewal Site provides the most potential immediate area of impact. This area, which interlocks with the square, will provide some \$2,000,000 in public improvements which will include new underground utilities, lighting, sidewalks, curbs and street resurfacings. Some 200 or more units of new and rehabilitated dwelling units will accompany the public improvements. This effort will also provide a measure of public improvements in a small portion of the square but its major positive impact will be to facilitate the restoration of the core of blight and deterioration within Highland Park, an area which is immediately adjacent to the square. The second major area is the historical spline which will serve to link John Eliot Square with High Fort Park with Kittredge Square as an intermediate node. This spline will provide a unifying mechanism for the major historical sites in Highland Park, will reinforce the historical nature of the community and will provide a controlling element for individual development project areas in Highland Park.

Development of the southwest corridor area was formerly linked to John Eliot Square with the prospect that the Roxbury Community College would locate its future new complex in that cleared area and some of its facilities directly in the square. This study is approaching the development of the square independently of this area due to the uncertainty of that concept. The location of the college in a corridor location could prove to be both politically and physically untenable. However, the eventual development of the corridor could add to or distract from the nature of John Eliot Square development. It is thus assumed that RAP can, through the community, exert enough influence to ascertain that the nature of corridor development will be supportive of the square revitalization.

Roxbury Crossing transit stop is projected as one of several Roxbury Transit stops to be provided within the corridor transit-vehicular system to be constructed approximately by 1978 or 1979. This site will be 5 to 10 minute walking distance from John Eliot Square and the potential activity provides a potential positive spill-over effect on

the square. Traditionally, any such activity node has generated development around its periphery. Due to the visual and physical constraint of the Mission Hill Public Housing Project adjoining the site it is projected that the nature and extent of such development will not undercut the John Eliot Square effort due to perceived economies and diseconomies which will tend to counterbalance each other.

Campus High Renewal Site, the second major external area, will provide a substantial impact on John Eliot Square revitalization. Some 60 percent of the square forms a part of the renewal site but is excluded from the project area due to curtailment of HUD funds. Campus High is slated to be completed within two years and while the specific nature of the High School complex is not finalized, its major impact will result from the construction of the new Dudley Street which will reduce or eliminate much of the through traffic in the square. Secondly, the new construction immediately adjacent to the square will transform that area and provide an infusion of activities and people which can provide potential positive spillover into the square. However, the differential topography of 60-70 feet sheer drop off between the two sites coupled with the dissecting New Dudley arterial will provide physical impediments which must be overcome if the potential economies are to be attained.

Dudley Square, the third major area of impact, represents the principal nearby activity center. Located within 5 to 10 minutes walking distance from John Eliot Square Dudley Square provides potential positive and negative impacts. From a positive standpoint, Dudley Station is a major transit stop and regional retail and community services center for Roxbury and as such represents a major activity center. This high activity could provide spillover effects into the square due to the pedestrian-vehicular traffic conflicts due to traffic congestion in Dudley Square coupled with many marginal retail establishments that have resulted, in part, therefrom. Thus, a revitalized John Eliot Square could provide an attractive, nearby area for the activity generated and terminating at Dudley Station. Contrarily, from a negative standpoint, an impending resolution of traffic conditions at Dudley Square, coupled with physical restoration could tend to dilute activities planned for John Eliot Square depending upon their nature. However, on the margin, due to the historical features of John Eliot Square and its natural topography which cannot be duplicated in Dudley Square its effect on John Eliot Square should be positive in terms of spillover. The maximum negative effect is perceived as being neutral - economies tending to counter-balance diseconomies.

4. Major Transit and Street Networks

The major regional transit line presently runs along Washington Street with a major transit stop at Dudley Square. A new orange line is slated to be constructed within the next five years within the southwest corridor as part of a composite transit-vehicular transportation system. Initial planning projects stops at Roxbury Crossing and Jackson Square (appendix 4). With the completion of the new line the existing elevated line will be removed at points south of Dudley Square. These two stops, Dudley and Roxbury Crossing, provide rapid transit terminal services at two opposite locations both within 5 to 10 minute walking distances. As an adjunct to the regional transit system a mini-bus line is projected to serve Highland Park residents. The mini-bus line is visualized as forming a loop which would provide connector service to the Dudley and Jackson Square transit stops. This mini bus loop would transverse John Eliot Square and its initial path would provide local community transit service at a maximum walking distance of two blocks or less than $\frac{1}{4}$ mile.

The major street network, as seen in appendix 5, is composed of three major arterials, Columbus Avenue on the west, New Dudley Street on the north and Washington Street on the east. The completion of New Dudley, now under construction, and the improvements along Columbus Avenue, embodied in the southwest corridor transportation system, will eliminate the excessive traffic, including trucks, which now transverse John Eliot Square. Centre Street which presently provides a heavy flow of regional traffic through the Square would in the future terminate such traffic from the south by linking into the corridor system at Jackson Square. Such traffic would then flow along Columbus Avenue and around John Eliot Square via the New Dudley Street. While the avoidance of heavy traffic and traffic congestion is desirable for the square a measure of external traffic is necessary for revitalization as an activity generator and also for external accessibility. This dual need will be met by relegating Centre Street from an arterial level of circulation to a local collector level. This change will be provided by reinforcing the connection between Centre Street and Heath Street, another major city thoroughfare. The regional bus line running through John Eliot Square along Centre Street and providing service from Dudley Square to points south would thus remain. The second cross town bus line from Dudley Square, through John Eliot Square and along Tremont Street to Mission Hill and points west would also continue through the square. However, this line would now be by way of New Dudley Street.

C. John Eliot Square Area Analysis

1. Definition of Boundary of Square

The John Eliot Square historical site provides the general basis for delimiting the boundaries of the square proper, see appendix 6. The eastern boundary of the historical site essentially establishes the eastern boundary of the square which runs south along Putnam Place, encompassing the parcel line of Dudley School and proceeding along Lambert Avenue to the intersection with Norfolk Street. The southern boundary of the square is defined by the RAP-UP IIA project site which originates in the center of the square along Dudley Street and terminates along some 50 percent of Norfolk Street. The western boundary of the square is essentially defined by topographical conditions. The square is relatively flat at its center, sloping away in all directions. Due to a rapid drop-off a great differential in grade exists along King Street. It is this differential in topography that defines the western boundary. Traffic circulation and topography both define the northern boundary. The arterial, New Dudley Street, delimits the boundary of Highland Park as a whole as well as the square. Reinforcing the New Dudley condition is a sheer topographical drop-off of 60 to 70 feet between the square level and the New Dudley Street level. The designated limits establishing the boundaries of the square are supported by visual and spatial observations experienced when one is standing at its center. It is then that these designated parameters become explicitly validated.

As a composite the square, as defined, represents the following characteristics:

Number of acres	14.17
Number of square feet	617,461
Number of parcels	108
Average parcel size	5,717 square feet
Largest parcel size	88,672 square feet
Smallest parcel size	879 square feet
Number of buildings	60

2. Existing Zoning Constraints

Existing zoning conditions provide knowledge of the officially sanctioned use of the land and an existing legal constraint within which revitalization must occur.

Observations

As indicated in Appendix 7 a substantial majority of the land is zoned for apartment use with a small degree of retail and light manufacturing use. The following tabulations indicate quantitatively this distribution:

Use	Square Feet	Acres	Percent
H1 Apartments	477,018	10.94	77.25
L1 Local Retail and Service	86,163	1.98	13.95
M2 Ligh Manufacturing	54,280	1.25	8.80
Totals	617,461	14.17	100

Implications

The existing zoning components are fragmented with no apparent logical relationship with themselves or the composition of the square as a whole. The proportion of land devoted to apartment use is not proportionally sound in terms of the historical use of the square as a site for retail and community services. The revitalization of the square consistent with the economic and historical premises must provide a logical evolution of rezoning that will conform to the "Higher and best" uses of the land determined by both market and social mechanisms combined.

3. Existing Land Use

As with zoning, existing land use provides a good index of the present utilization of the square.

Observations

As seen in appendix 8 the spatial distribution of the land use is highly inconsistent with existing zoning. Conversely to the zoned use a significant amount of the land is devoted to neighborhood services. Residential and public facilities uses dominate the next major uses. A use that cannot be denoted within a zoning distribution is vacant or unimproved land. Vacant or unimproved land is the second major use of the Square's land. Public open space is essentially non-existent. The following breakdown shows this

distribution quantitatively:

Use	Square Feet	Acres	Percent
Residential	110,736	2.54	17.93
Retail	49,149	1.13	7.96
Residential/Retail	4,170	0.096	0.67
Neighborhood Services	184,041	4.22	29.81
Public Facilities	109,751	2.52	17.77
Public Open Space	8,480	0.195	1.37
Vacant or unimproved Land	151,134	3.47	24.49
Totals	617,461	14.17	100.00

Implications

As with zoning, existing land uses are fragmented with no apparent basis for the distribution. The existing use is more a result of the under-utilization of the square and the marginal uses attendant to such a condition. Any revitalization effort can be expected to generate a more efficient land use distribution that will be partly determined by private market forces coupled with social considerations.

4. Effective Land Use.

Effective land use, as a measurement, indicates the "now" use of the land as opposed to the generalized land use which includes the most recent use to which the land was put. This distribution can be seen in Appendix 9.

Observations

The effective land use distribution shows that a significant amount of the square's land is without effective use. The non-use is composed of vacant land and land with vacant buildings. It is these combined measures that begin to define the fundamental degree of under-utilization of the square. A number of the vacant buildings consists of some of the most historical buildings within the city. Compounding this overall condition are other buildings shown as having an effective use but whose use is marginal and could become vacant with the least exertion of additional negative forces. In addition, while the highly historic First Church of Roxbury dominates the square in terms of land mass and physical structure and is shown as having an effective use this use is marginal since the former congregation has departed the area enmasse and the remaining smaller group utilizes the church primarily once a week on Sunday. It is such conditions that permeate the square and contribute to its under-utilization. The

following summary provides a quantitative measurement of this condition:

	Square Feet	Acres	Percent
Land with effective use	411,551	9.44	66.64
Land with vacant buildings	54,776	1.26	8.87
Vacant land	151,134	3.47	24.49

Implications

The effective land use distribution which indicates that a third of the land is without effective use provides the focus upon which development efforts must concentrate. The non-effective land uses coupled with marginal uses portray an atmosphere of benign neglect and visible trends non-conducive to development activities. In order to reverse this condition and provide steps toward revitalization a development step with massive first stage impact will be necessary. Only such a step will begin to unleash market forces or reinvigorate the historical nature of the square as an activity center.

5. Existing Building Conditions

Existing building conditions provide an additional dimension, along with effective land use, to the degree to which a declining condition has been reached within the square. This element also provides a basic measurement of the physical fabric of the study area.¹⁷

Observations

Existing building conditions within the square fully reflect the conditions and degree of disinvestment existing throughout Highland Park. As indicated in Appendix 10 the spatial distribution of deteriorated buildings fully delineates the hidden dimension existing within the effective land use. While certain parcels of land are shown as having an effective use the existing building condition indicates, as one measurement, that the use tends toward marginality. The fragmented distribution of building conditions - deteriorated buildings among sound buildings - indicates the absence of market forces and selective disinvestment. The following tabulation summarizes the variance in building conditions:

¹⁷. Buildings were individually surveyed and rated in terms of the conditions of the foundation, walls, roof, secondary components (windows, doors, etc.) and exit provisions. Rating procedures were similar to those used by renewal agencies.

variance in building conditions:

Condition	Number	Percent
Sound	13	22.5
Needing Minor Repair	23	37.5
Needing Major Repair	14	23.7
Sub-standard	10	16.3
Totals	60	100.00

Implications

As indicated in the above tabulation 40 percent of the buildings in the square are in varying degrees of deterioration. This factor along with the high degree of vacant and unimproved land provides a visual image that begins to engulf the natural and fundamental value of the square. Underutilization of the square is evidenced by the fact that those buildings that tend to be in sound condition are of a public use or neighborhood service nature which in turn indicates the absence of economic or fiscal vitality. The existing building conditions further indicate another two-fold paradox. First, the high degree of deterioration, while undercutting the squares vitality, will have a cancerous effect on other sound properties. Second, owners who wish to upgrade are caught in the "prisoner's dilemma" in which improvements made are subjected to the diseconomies of adjacent deteriorated properties. This two-fold paradox can only be remedied by a concerted action within the square that will have positive impact on all or a majority of the properties.

6. Property Ownership and Local Control of Property

The nature of property ownership was determined and a detailed assessment made in terms of property that is (a) resident owned and occupied, (b) resident owned and rented, (c) absentee owned and (d) city owned. The spatial distribution can be seen in Appendix 11 and the following tabulation provides a quantitative summary of the distribution:

Nature of Ownership	Square Feet	Acres	Percentage
Resident owned and occupied	70,332	1.61	11.39
Resident owned but rented	76,918	1.76	12.46
Absentee owner	264,060	6.06	42.76
City owned	193,141	4.43	31.28
Unknown	13,010	0.31	2.11
Totals	617,461	14.17	100.00

Local Control of Land	Square Feet	Acres	Percentage
Private			
Resident	147,250	3.38	23.85
Absentee	347,450	7.97	56.27
Public	109,751	2.52	17.77
Unknown	13,010	0.30	2.11
Totals	617,461	14.17	100.00

Observations

As indicated in the above tabulation the largest segment of property, by ownership group, is vested in the hands of private absentee owners. Though not evident in this tabulation the First Church Property, in addition to being the largest parcel in the square, accounts for 34 percent of this total. City owned property forms the second largest ownership category. While a significant amount of city owned property is of a public use nature (schools) 43 percent of the land held is of a non-public use nature.¹⁸ As indicated in Appendix 11, absentee owned property, private and public, is fully diffused throughout the square. In composite form private absentee owners and the city control 74 percent of the property in the square. Conversely, as indicated above and spatially in Appendix 12, residents control only slightly less than a third of this amount.

Implications

Most studies have found a strong correlation between absentee ownership of property and blighted conditions whether the conditions be physical structures or unimproved land. Even without empirical tests of the data this correlation can be seen to exist in the square by comparing the spatial distributions of effective land use and building conditions with ownership patterns. The aforementioned correlation indicates the full nature of disinvestment in the square and the principal causal structure of that disinvestment. Since the city does not possess the mechanism, legally or otherwise, to undertake private development, when property is transferred to the city due to tax foreclosure this transfer simply results in the nature of ownership of a continuous blighted property. In addition, foreclosure simply legalizes a non-tax paying condition. The blight remains. Thus, fundamental to the revitalization of the square must be a reversal of the ownership structure that will provide for substantial local

¹⁸. 38 percent of the non-public use city owned property will revert to the RAP-UP IIA project slated to commence in the spring of 1974.

control to abet the development process.

7. Assessed Property Valuations

Property valuations, allowing for assessment fallacies, provide another important indication of vitality. This parameter also allows a measurement of the extent of social cost accompanying disinvestment, blight and underutilization. The following summary indicates the range of valuations in the square:

Assessed Property Valuation (total dollars)	Percentage of Properties
Less than 2,000	13.56
2,000 - 4,000	12.18
4,000 - 10,000	22.38
10,000+	51.88

Assessed Property Valuations (dollars per square foot)	Square feet	Acres	Percent
0.00 - 0.49	108,279	2.47	17.53
0.50 - 0.99	154,468	3.55	25.01
1.00 - 1.99	170,157	3.91	27.55
2.00 - 2.99	56,246	1.29	9.10
3.00 +	128,311	2.95	20.81

Observations

As the above tabulations indicate, approximately 50 percent of the properties in the square have absolute valuations exceeding \$10,000 while only some 20 percent have valuations exceeding \$3.00 per square foot. These distributions can be seen spatially in Appendices 13 and 14. The most significant factor revealed is that the school and church properties, with no tax benefits to the city, fall within the highest valuation range and comprise the largest proportion of property in that range. This factor alone emphasizes the necessity of transforming the economic condition of the remainder of the property in the square. Additionally, when the above spatial distributions are compared with the effective land use and building condition distributions a weak or essentially no correlation exists between valuations and the degree of blight and deterioration.

This would indicate, among other things, deficient assessment mechanisms, higher assessments on disinvested property that do not lead to property improvement, tax abatements on run down property or tax arrears, or a combination of all.

Implications

The implications of the assessed property valuations are obvious. The economic cost to the city resulting from previously cited conditions is enormous notwithstanding the high social cost to Highland Park residents directly and other city residents indirectly. The case for inducing market forces within the square to move its land to "highest and best" uses is strongly reinforced by the marginal returns to the city while it remains in its present condition considering its natural and historical potential.

8. Gross Area of Existing Buildings

The previously discussed existing conditions of the square indicate that its revitalization ultimately will require a transformation of some buildings in terms of use and the demolition of others. Knowledge of existing gross areas of buildings will begin to denote their potential for, and one particular measurement of, rehabilitative use.

Observations

Existing land use of the square has indicated that more than 50 percent of the buildings are used for non-residential purposes. Among such buildings gross area ranges from a high of 40,000 square feet to a low of less than 3,000 square feet. The spatial distribution can be seen in appendix 15 and its summary as follows:

Number of non- Residential Buildings	Square feet
1	40,000 +
2	25,000 - 30,000
4*	8,000 - 12,000
3*	5,000 - 7,999
12	3,000 - 4,999
1	less than 3,000

* Buildings with dual residential/retail use included.

Implications

While a rehabilitative approach is a desired element in any revitalization plan and strategy that evolves, the above distribution of gross areas, given other attributes, reveal use constraints for a large number of non-residential buildings. This constraint could become critical depending upon the expansion flexibility of a given building with respect to an adjacent building.

9. Circulation and Infrastructure

Circulation and infrastructure will be considered in terms of the existing street pattern, pedestrian movement, streets and sidewalks existing condition, parking and utilities. This data, while providing a somewhat descriptive overview of the physical fabric within the study area, more importantly is an indication of the degree and nature of capital improvements necessary for the restoration of John Eliot Square, in order to re-establish it as a desirable place in which to be.

Observations

John Eliot Square is located in the middle of a corridor heavily used by vehicles going to Dudley Station, the South End and Central Business district. The major streets that presently carry this kind of traffic are Roxbury, Centre and Dudley Streets (Appendix 16).

The study "Housing and Community Development: Highland Park" indicated that the Kittredge Square area has a high concentration of children, many of which are attending Dudley and Timilty Schools and will be attending the new Campus High School upon its completion (Appendix 17). The daily influx of automobile traffic at high, uncontrolled speeds is a hazard which causes fragmentation within the square and residential areas adjacent to it.

The existing infrastructure is in relatively poor condition. Streets and sidewalks are badly in need of repair. The utilities are approximately 100 years old and the street lighting level inadequate (Appendices 18, 19, 20).

Implications

Within this area the streets that have a major collector-distributor function are Roxbury, Centre, Highland and Dudley Streets (see Appendix 16). The streets as

presently used are an inducement to through traffic. Moreover, most of these streets are unsuitable to serve a collector-distributor function, because of their narrowness and winding physical aspects. The characteristics combined with two-way traffic and dispersed parking patterns on local residential streets have perpetuated an inefficient street network serving this area.

Detailed observations within the study area resulted in the following findings: Centre Street's traffic entering the Square is moderate and fast. The same applies to Roxbury, Bartlett and Dudley Streets. This type of traffic creates a dangerous situation for children and elderly persons, particularly, attempting to cross the street (Appendix 17), especially since the square is located at the crest of the hill as which the above streets intersect and slope away from (Appendix 22). Cars along Centre Street are parked on the sidewalk for fear of an accident occurring due to passing cars attempting to negotiate the curve at high speeds. The intersection of the above mentioned streets is highly susceptible to accidents due to blind spots and the absence of traffic signals and other such controls.

Highland Street, although marked spottedly with one-way signs in the direction away from the square is used by the occasional driver, as a two-way street, in order to take a short cut through the community. The same vehicles have been observed jumping stop signs in the area (Appendices 16, 18, 19).

Putnam and Norfolk Streets, both narrow with one parking lane, are being used as a two way street, although marked with one way signs (Appendices 16, 18, 19).

In general, existing streets in the area should be realigned where necessary and managed and enforced in order to channelize traffic through the study area, providing the necessary relief on local streets (see Appendix 37).

Detailed observations of streets and sidewalks existing condition primarily point out their poor physical condition and inadequate traffic signalization (Appendix 18 is self-explanatory). Policy considerations should be aimed at improving these conditions by repaving streets and repairing or replacing and extending sidewalks where shown necessary and the installation of proper signalization and traffic management controls.

Detailed observations of the utilities has shown that the water, sewer and electric supply lines are sufficient for present community needs and those anticipated within

the study area for the future. However, there are some lines that are extremely old, constructed of tile and brick. They date as far back as the mid 1850s, and are therefore in need of replacement. The street lighting level is highly inadequate throughout the square with the worst situation occurring along Roxbury Street where the distance between poles is in excess of 250 feet. Many of the fixtures are old incandescent lamps with low output of approximately 15 feet in height. The remaining fixtures not as old, are approximately 20 feet in height or greater. Fixtures of this height are appropriate for streets designed for large traffic volumes moving at high speeds, but are inappropriate for local streets with a lot of pedestrian activity. More-over, it discourages this kind of activity because the low output has a negative effect on the safety of these streets.

Policy considerations should be aimed at providing lighting which is in scale with pedestrian activity that will be taking place within the square and adjacent residential areas. It is felt that a fixture about 12 feet in height would be appropriate within the square and about 19 feet in height in adjacent residential areas and along Centre and Roxbury Streets. Spacing between fixtures would be enough to provide safety and visibility for the aforementioned activities.

Replacement of aged utility lines would occur simultaneously with the construction of RAP-UP IIA. Any design development of the pedestrian spaces within the area would maintain the route of utilities as a clear easement, assuming easy access for any necessary repairs that might be required in the distant future.

10. Spatial and Visual

Spatial and visual characteristics are considered in terms of building mass and open space, topography, paths, landmarks, vegetation and views. In addition to providing a descriptive overview of the study area's physical form, an attempt has been made to interpret the perceptual potential of this form by making explicit its under-lying meaning and structure.

Observations

Visual observation has shown that the areas with the greatest potential for public open space within the study area are the John Eliot Square Street extending from Highland Street to Blanchard and Dudley Streets and the property of the First Church of Roxbury that is presently fenced off. This property presently represents the only area with trees and a green within the square, and is therefore a highly desirable amenity (see Appendices 21 and 22).

The descriptive analysis of John Eliot Square as observed is as follows: the northern edge of the study area is defined by a cliff approximately 60 feet high along the perimeter of New Dudley Street. From this cliff-edge there are views out across the city some of which are in photographs 2, 3 and 10 of Appendices 22 and 23.

The highest ground within the square is relatively flat beginning at the intersection of Centre, Roxbury and Highland Streets and extends for a short distance in the direction of the First Church in Roxbury at which point the topography begins to slope away. Upon approaching the square from a westerly direction at the intersection of Centre and Roxbury Streets one is presented with a potentially dynamic internal panoramic view of the square with glimpses of the city beyond to the north. One is also at this point attracted to the axis of both the First Church in Roxbury and the Cox Building (see photograph 7, 9 of Appendices 22, 24 and 25).

The landmarks which abound in the study area are the Norfolk-Garvey House, John Eliot Hotel, Spooner-Lambert House, Cox Building, First Church of Roxbury, Fellows Athenaeum, Dudley School, St. John's St. James' Episcopal Church, Formerly Ionic Hall and the Dillaway Thomas House and are dispersed throughout the square (see Appendices 6 and 22). Several of these structures are now on the National Historic Register. The character of the Eliot Hotel, Norfolk-Garvey House, the First Church in Roxbury and the Cox building are depicted respectively in photographs 5, 6, 7 of Appendix 24.

The church property provides the only soft contrast, trees and grass to an otherwise hard urban fabric. With respect to its location, it is situated within the heart of John Eliot Square. Thinking of it as a village green, one can imagine its potential as a place to be off the path of intensive movement, simply sitting and observing surrounding events or activities (see Appendices 21, 22, 24 and 25 photographs 5, 6 and 11).

Implications

To date the attention given to the significance or meaning of urban spaces has been limited. One who has come closest to the problem of urban semantics is Kevin Lynch. In as much as he has concerned himself with thinking of the city in the very consciousness that perceives it - that is, with finding the image of the city in the reader's eye.¹⁹

¹⁹ Structures Implicit and Explicit, Falcon Press "Semiology and Urbanism", Roland Barth, Graduate School of Fine Arts, University of Pennsylvania, 1973.

But this work has remained on a referential level depicted by Lynch's classification of descriptive units such as paths, nodes, views, slopes and landmarks. In order to clarify the significance of urban spaces it is necessary to carry the analogy to metaphoric and semantic levels.²⁰

In recent times semiology, as a science of recognized system of signs, has been an important influence on efforts to make explicit the structure of urban spaces. Two semiologists, Umberto Eco and Roland Barth, have made major contributions in this area of study. They see the characteristics, land marks, topography and so on, as a system of sign vehicles that are in a continuous state of transformation.²¹ One in which the architectural meaning and history might be found undergoing losses and recoveries over long periods of time. A dialectical process is taking place between structures and events, that is, between buildings physically stable which are objectively describable and cultural events which are the signifying form. The structures may remain over time, but the cultural events change with circumstance such as suburbanization, phenomenon and their meaning likewise.

This transformation process becomes apparent when looking at the historical evolution of John Eliot Square within Highland Park and the city. Before the turn of the century John Eliot Square and Highland Park were places where the wealthy resided. Many stayed at the Norfolk House and others resided at various locations on the hill enjoying the pleasures of a rural environment with views out over the natural landscape and several factories which some of them owned in lower Roxbury. The significance placed on viewing the natural landscape is evidenced by the large number of belvederes on top of houses throughout the area. Coming full circle, today the residents are of a working class, which are primarily Black. The adjacent lower Roxbury area is evolving into a residential community with a high level of social service facilities. Therefore, as activities, uses, and events begin to occur both inside and outside of structures, such an occasion was the opening of the Roxbury Action Pharmacy within the square. John Eliot Square as a place will assume new significance.

20. Ibid.

21. Ibid., & Structure Implicit and Explicit "Function and Sign Semiotes of Architecture" Umberto Eco, Graduate School of Fine Arts, University of Pennsylvania, 1973.

The levels of meaning which urban objects that imply places can obtain become explicit in Roland Barth's metaphor of the Eiffel Tower as follows: First, the tower viewed as an object from surrounding areas in Paris, secondly the object or tower visited becomes a place from which you view out to its surrounding, the city, and thirdly, the symbolic meaning attributed to the tower as representative of the city of Paris.²²

The ability of John Eliot Square to realize these three levels of significance becomes evident through a somewhat similar analogy. Firstly, as an object viewed from surrounding communities, the white tower of the First Church in Roxbury stands prominently on the skyline soaring with one of its comrades the High Fort. A visual sense of its imaginability can be obtained from photograph 4 looking from Parker - Mission Hill and 1, looking from Columbus Avenue just north of Roxbury Crossing. Secondly, upon visiting the square one is presented the opportunity to perceive an anthology of architectural history beginning with the Dillaway Thomas House the First Church in Roxbury, and the Cox Building, to mention just a few up to the New RAP-UP IIA scheduled for ground breaking in early spring of this year, and likewise an anthology of cultural events, as new activities and uses by residents with Highland Park and the surrounding communities begin to take place. The external views out across the city to the north as shown by photograph 2 and 3 of Appendix 23 provide the opportunity for one to sense John Eliot Square and Highland Park as a place with its own character, people and meaning and how it relates to the city as a whole. Third, and lastly, as the above activities and events become a reality, John Eliot Square will again take on symbolic meaning within Highland Park, Roxbury and surrounding communities throughout the city and region.

In order to make these potential perceptual elements become intelligible signs they must be differentiated and distinguished from the present total impression with which they are confusedly linked.

11. Summary

This section marks the completion of the analytical phase of the study. Summary of the previous items of the analysis of existing conditions outlined in section III A of this study have made it possible to identify existing viable areas within the study boundaries. More importantly, it has made it possible to establish the criteria necessary for the evaluation and identification of potential development project areas.

22. Barth, Op. Cit.

Observations

A thorough analysis of existing conditions such as land use constraints, tenure and spatial investigation have been indicated spatially in Appendices 6 through 22 and made possible the determination of existing viable areas within the square. As depicted in Appendix 26 area (1) is in need of only minor repairs. Primarily because it exhibits a high percentage of resident owned and occupied dwellings that are in sound condition. These properties also exhibit relatively good environmental characteristics (see Appendix 10, 12 and 13). Areas (2) Timilty School (3) St. John's Episcopal Church and (4) The First Church in Roxbury are not resident owned but are in sound condition. These properties are also in relatively good environmental condition with Timilty School and St. Johns providing significant services to the community.

Properties in areas that fall outside of the boundaries of existing viable areas discussed above are identified as potential development project areas. Because the parcels within these areas exhibit several major characteristics that contribute to the blight and disinvestment of property within the study area (see Appendix 27).

A breakdown of some of the quantitative characteristics of the potential development project areas are given below:

Project Areas	No. of Parcels	Total Area (acres) sq. feet	Average Parcel Size sq. feet	No. of buildings	Average Gross Area of Buildings square feet	Total Gross area of buildings square feet
1	2	(0.184) 8032	4016	1	4290	
2	15	(1.68) 73,256	4884	2	6084	12,168
3	9	(1.47) 64,201	7133	3	6550	19,650
4	7	(1.10) 48,109	*3,628	6	*2520	55,000
5	16	(0.87) 37,885	2368	13	3832	49,820
6	10	(0.85) 37,113	3711	7	3378	23,650
7	10	(0.72) 31,210	3121	4	8856	35,425

* Area of Dudley School Excluded

Implications

Appendices 28 through 31 are a series of evaluation matrices for parcels in potential development areas. The criteria established to evaluate each parcel within each project area, as shown in Appendix 27, are derived from the analysis of existing conditions phase of this study, and are divided into two categories, land and buildings. Under land are listed tenure, effective use (whether vacant or not) and parcel size (indicates potential for development). Under building are listed effective use (whether vacant or not), condition, construction (whether structural system is wood, frame, steel or masonry and flexibility of the system used, community interest, gross area (potential for rehabilitation) and historical value.

The rating of parcels in respect to the criteria, and how these parcels effect their project areas, is dichotomized between positive and negative. This rating procedure is based primarily on objective observations made earlier in the study and represented in spatial and quantative form. However in some particular instances value judgements have been the deciding factor in determining whether a particular parcel is a negative or positive influence on its project area. The criteria, community interest by its very nature, is value-laden thus the study has relied heavily on RAP as the pulse of the community.

Following the criteria is the summary which is divided into two categories, rehabilitation for development and cleared for development. After parcels are rated either positive or negative in respect to each criteria a final overall weighing or evaluation takes place. Those parcels with a majority of positive ratings are placed in the rehabilitation for development category and those parcels with a majority of negative ratings are placed in the clearance for development category. The results of this evaluation process with regard to all parcels in potential development project areas are depicted in appendices 28 through 31 in the summary column; and buildings that are to remain both inside and outside of these project areas are shown spatially in Appendix 32.

D. Development Concept

The development concept derives itself from (1) evaluating the observations and implications extracted from the various parameters and constraints revealed by the area analysis, (2) relating the evaluation to the general framework parameters, (3) recognizing and reinforcing the logical elements and trends around which development might

proceed in keeping with the premises - historical, economic and social - initially established and (4) embodying these elements into a paradigm that reflects the project areas and buildings slated to remain.

The concept, as seen in the abstract depiction in Appendix 33, approaches the development of the square in terms of the ground level use of its land. This schism will provide the best means of evolving primary land use in terms of the land rent-activity location relationship as it relates to the physical constitution of the square. Where upper levels exist within a generic relation with the ground level, upper level usage will be determined by a combination of economic forces (based upon revitalization) and social welfare needs.

The necessity, economically and socially, of convenience-neighborhood retail services has been established. Based upon existing and impending development of this nature, retail use begins to define a strong locational line running from the intersection of Roxbury and Centre Streets, along Eliot Street and Terminating at the intersection of Dudley and Bartlett Streets ("A"). This retail development pattern is specifically defined by an origin composed of (1) the existing retail located on the north side of Roxbury Street (2) the vacant building of retail use located at the "needle point", the site circumscribed by Roxbury and Centre Streets, and (3) the RAP-UP IIB retail drug store and insurance office, located at the corner of Centre and Highland Streets. The directional line continues with the impending RAP-UP IIA development which will include 8,000 - 10,000 square feet of retail space (new construction) fronting on the square and the restoration of the Marcus Garvey House whose ground floor level is slated for retail use. This retail spline culminates with the circular Cox Building which is the only building in the "Hinge Block" that fronts on the Square proper and the only building slated to remain in that block. The retail spline is the first element in the development concept.

The second element forms along the north side of Roxbury Street ("B"). This element begins to indicate a directional flow toward public use, its origin being defined by the Timilty Junior High School and Dillaway-Thomas House sites. Transversing the line is the major visual connection out of the Square and toward the city center. This element precludes the introduction of retail use since such a use would exist conversely and in relative isolation with respect to the retail spline and would have to be of a strongly self-sustaining nature.

The third element ("C") represents the center of the square proper and serves as a unifying element. This element defines itself as the potential open space within the square and consists of a portion of the vehicular traffic island, a portion of the presently fenced in First Church site and the exceptionally wide vehicular way running from the traffic circle to the intersection of Dudley and Bartlett Streets. This central element interfaces the major portion of the retail spline and forms a continuity with the major visual connection out and toward the city as indicated in element two above.

The fourth element consists of the major pedestrian and vehicular patterns which, by the resolution of their conflicting movement distributions, will serve to clarify and verify the composition of the first three elements. Major vehicular circulation is depicted by the heavy double arrow line and pedestrian circulation by the circles.

This concept will satisfy the three premises, historical, economic and social, initially established for the development of the square while recognizing and reinforcing its natural spatial and visual qualities. The development sequence and strategy that follows in the next section will fully and explicitly clarify this concept.

E. Development Sequence and Strategy

Three basic premises - historical, economic and social - have been established to form the foundation of John Eliot Square revitalization. The historical premise represents the vibrant reality and residue of the past and while presently dormant it and the natural visual and spatial qualities of the square provide generic values - place, people, activities - which can serve to form a mutation of an era foregone with that of a new people in a new time that will make and continue this historical transformation. The social premise is embodied in RAP's effort to effect this transformation of Highland Park as a whole and in the primacy of John Eliot revitalization to buttress that effort. The economic premise which completes the trilogy provides the focus upon which the development sequence and strategy will unfold.

The economic premise has been delineated in terms of inducing market forces and mechanisms within the square to move its land toward "higher and best" uses, but related to the social purposes and needs of Highland Park residents. The broad and incremental changes which will effect this inducement will be considered within the views formulated by Hirschman regarding development and, in this particular case, societal change.²³

²³ Albert O. Hirschman, The Strategy of Economic Development, 16th Edition, 1973.

The area analysis previously evaluated, in addition to defining the strong positive attributes of the square, has indicated the constraints and obstacles normally economically associated with non-vitalization and non-development. While recognizing that obstacles to the development process exist, i.e., land tenure, disinvestment, lack of capital, etc., Hirschman, a Harvard University Economist, as opposed to conventional and traditional economists, views these obstacles "as reflections of contradictory drives and of the confusion of the will." Equating obstacles and action as one Hirschman sees the fundamental problem of development consisting of the need to generate and energize human action in a certain direction. That is, obstacles generically exist without contravening action. With the acceptance of this broad view of developmental processes this study then embodies two intermediate concepts of action or implementation strategy proffered by Hirschman - unbalanced development and the puzzle theory of development.²⁴ The development sequence and strategy then become an integrality of action (decision making) and consequences within a framework of jointed incrementalism and inducement mechanisms.

The first concept which is basic to the square's development involves the principle of unbalanced development. This view of development is diametrically opposite of general economic theory in which a growth system remains in balance or equilibrium. In Hirschman's view, development proceeds and societal change and growth occur under unbalanced conditions - a positive action induces another action. In community development these two separate actions are equated in terms of social overhead capital, or public improvements, vs private investment. A move by either, with large enough impact, includes a move by the other creating a continuous chain reaction of states of unbalance. When a state of balance is attained development discontinues or the development process is complete.

The puzzle theory of development, the second Hirschman concept, is conterminous with conglomerative development in which the revitalization of the square signifies. This concept or theory answers the question of when during the development process should an attempt be made to place the most difficult piece or project as one of a series of jointed incremental steps. The concept is taken from the ordinary strategy used in working a jig-saw puzzle - mental effort is not exerted in attempting to emplace the most difficult piece first or too early in the puzzle-working process.

24. Ibid.

The theory holds that easy pieces should be placed first to provide interfaces or reference edges within which the most difficult piece can then be emplaced, the greater the number of interfaces the easier the emplacement of the difficult piece.

These two concepts are embodied simultaneously and are depicted in Appendix 34. Revitalization begins with sequence number one and a required development action with concerted impact. As has been indicated, at area "A" RAP will undertake shortly a private development project, RAP-UP IIA, which will represent approximately \$4 million of investment directly in and adjacent to the square. This project will include 140 units of new housing and 8,000 - 10,000 square feet of retail space along the square. Also included will be initial rehabilitation of the Marcus Garvey House also fronting on the square. Included in the RAP-UP IIA retail space will be a food market of approximately 6,000 square feet which, supported by the existing drug store, will provide the principle and initial magnet or activity generator. While the size of this market tends to be small by present day standards, its justification can be found in the retail market analysis found in the following section. With this initial major action by RAP will come establishment of retail use at the "needle point" area "B", by RAP or others and revitalization of the existing retail at area "C" based upon an understanding of prior consent by the present owner.

The First Church, as its role in revitalization of the square, is expected to remove the historically contradicting tall and hideous iron fence surrounding the total church property and the principle open space in the square. This fence is expected to be replaced with a lower wooden fence more in keeping with the historical definition of the church grounds. However, at area "D" where the church grounds are basically flat the fence is expected to remain down to open up this space for public open space use while the church retains legal control of the property.

This development action by the private sector will require improvements in the square's infrastructure as revealed by the area analysis. The city is expected to leverage RAP's investment of approximately \$4 million by 5-10% in public improvements that will have equal impact on the development sequence since without this infusion revitalization will be impaired. At area "E" these public improvements will involve eliminating vehicular and pedestrian conflicts and unsafe vehicular conditions by (a) removal of the traffic circle in the square, (b) alignment of Centre and Roxbury Streets and (c) closing of the vehicular way adjacent to the southern side of the church property and replacing it with a pedestrian plaza along the major portion of the retail spine. From a vehicular and public way standpoint also included will be improvements of Roxbury Street as it transverses the square and improvements of that portion of Norfolk Street not included in the Kittredge Square Renewal area. The Kittredge Square renewal project will provide improvements along Centre and Highland Streets and a portion of Norfolk Street.

Integral with the above efforts will be improvements in the area north of Roxbury Street. At area "F" improvements will be embodied in the restoration of the historical Dillaway-Thomas House, the former parsonage for the First Church. In conjunction with this restoration will be the creation of the Dillaway-Thomas historical park immediately adjacent to the former parsonage and the provision of public off-street parking further to the east. The creation of the park will relate the parsonage spatially and visually to the church. While reaffirming the historical nature of the square the Dillaway-Thomas historical area will also provide short term and long term economic impact in support of revitalization. First, with the revitalization of the historic John Eliot Square being selected as one of the areas in Roxbury by Boston 200 to be emphasized for the Bi-Centennial capitalization can be made on the infusion of tourists into the area. Secondly, in terms of long term economic impact, the Dillaway-Thomas House is being reviewed for inclusion in the regional historical park network proposed for the Boston metropolitan area by Senator Kennedy (bill now pending in congress). In addition to providing, in part, resources for improvements this action will provide a long-term continuity of tourists.

Improvements at area "C" involve capital improvement expenditures by the Boston School system. At present the space behind the Timilty Junior High School is used for personnel car parking facilities. In keeping with overall improvements in the square, the school system is expected to construct a parking space behind the retail area "C". This action will allow the present parking space to become available as "hard" playground space with "soft" playground space provided by improvements of the area immediately north of the newly constructed parking space. Inherent in this action by the school system is expected facade improvements in the school building which has been indicated as basically sound in overall condition.

Within development sequence number 1 the remaining public improvements exist at area "H". This area is composed of relatively steep and sloping topography which does not lend itself for development use other than public open space. A portion of this area has been affected by the construction of New Dudley Street. That particular portion will be upgraded by the New Dudley Street improvements and it is expected that the improvements will be extended to include the remainder of area "H".

While the improvements in infrastructure conditions appear to be numerous in terms of items involved their costs as a supportive effort in the square's revitalization are more than offset by the private investment contemplated in the square. A detailed preliminary estimate of the major items can be seen in Table III-1. The efficiency of these expenditures can be measured by the return on the investment of public expenditures in terms of taxes generated. The total public improvements represent a social overhead capital investment of approximately \$400,000 which is

TABLE III-1 Public Improvement Expenditures

RAP-UP IIA IMPROVEMENTSPART I - ELIOT PLAZA

A. <u>Plaza and Street Alignment</u>		\$80,680
1. Removal of John Eliot Traffic Circle	\$ 4,000	
2. New curb and street paving	2,500	
3. Paving (plaza)	64,000	
4. Storm drainage (plaza)	3,600	
5. Removal of sidewalk and curb	1,700	
6. Trees	3,480	
7. Street furniture	1,400	
B. <u>Extended Green</u>		20,150
1. Removal of sidewalk and curb	2,000	
2. Fill	3,000	
3. Grading and compacting	7,500	
4. Seeding	5,000	
5. Walks, bituminous	1,250	
6. Street furniture	1,400	
C. <u>Lighting</u>		15,500
1. Excavating, fill and conduits	3,500	
2. Ball globe lights, 12 feet high	12,000	
		<hr/> 116,330

PART II. NORFOLK STREET

A. <u>Lighting</u>		16,400
1. Excavating, fill and conduits	10,000	
2. Rectilinear Luminaire, 19 feet high	6,400	
B. <u>Sidewalks and Curb</u>		7,800
1. Remove old	1,600	
2. Install new	6,200	
C. <u>Street Resurfacing</u>		<hr/> 750
		24,950

TABLE III-1 (continued)

DILLAWAY - THOMAS HISTORICAL AREA

A. <u>Dillaway - Thomas House</u>		\$70,000
B. <u>Dillaway - Thomas Park</u>		82,950
1. Demolition (one structure)	3,000	
2. Fill and grading	10,700	
3. Retaining Wall	12,500	
4. Seeding	16,600	
5. Walks and Stairs (includes removing Gay Street pavement)	10,850	
6. Street Furniture	3,000	
7. Trees	5,800	
8. Lighting	20,500	
C. <u>Parking</u>		56,825
1. Demolition (one structure)	5,000	
2. Grading and fill	8,500	
3. Paving	19,125	
4. Curb	8,100	
5. Retaining wall	4,600	
6. Lighting	11,500	
		<hr/> \$209,775

ROXBURY STREET

A. <u>Lighting</u>		24,700
1. Excavating, fill and conduits	12,700	
2. Rectilinear Luminaire, 19 feet high	12,000	
B. <u>Sidewalks and Curbs</u>		15,000
1. Remove old	3,000	
2. Install new	12,000	
C. <u>Street Resurfacing</u>		<hr/> 2,000
		\$41,700

10 percent of the RAP-UP IIA investment. A strictly conservative estimate indicates that RAP's investments in the square alone will generate \$150,000 in taxes yearly. These taxes will provide the city with a 37 percent return on its investment of social overhead capital. While a costs/benefits analysis would also be helpful in indicating the efficient use of the capital improvement expenditures, such an analysis is not attempted at this time due to the time factor involved in assessing the social or indirect benefits produced as economic benefits are gained.

The completion of sequence 1 with the infusion of public expenditures will induce and provide the additional impact necessary for development sequence 2. This sequence, which directs itself to another historic edifice, will involve restoring and transforming the John Eliot Hotel into a Hotel Conference Center. The project is expected to be phased by RAP to begin execution at the completion or slightly prior to the completion of development sequence 1. A definitive study has been made regarding this use and while an updating will be required, the nature of use has been properly evaluated. An attempt at implementation has been impossible due to the overall conditions existing in the square. The project will represent an additional and continuing investment of approximately \$750,000. In conjunction with this project will be the provision of a restaurant on the ground floor of the Garvey House whose initial renovation is slated to begin with the RAP-UP IIA project in sequence 1. The upper floors of the Garvey House will be used for social service facilities and office rental space. With the hotel conference center will come expected public improvements along Blanchard Street.

In terms of Hirschman's puzzle theory of development, enough interface pieces will have been emplaced to induce the implementation of sequence 3 which includes the most difficult piece or project, the "Hinge Block" or area "A". The development of the Hinge Block will include the restoration of the historic circular Cox Building fronting on the square and the construction of 32 new units of middle to higher income housing. In addition to the housing, the Cox building, fronting on the square, will provide retail space on the ground level, completing the retail spline along the square. The upper three floors are slated for 6 units of luxury apartments. The market forces generated by sequence 1 and reinforced by sequence 2 will provide the necessary impact to impel this development which will represent an investment of more than \$1 million. A potential limited partner has been identified by RAP for this development effort. The remaining portion of sequence 3, Area "B" will involve moderate housing rehabilitation which will include the historic Spooner-Lambert House. At this point public improvements will include providing the

remainder of the pedestrian plaza (cost included in sequence 1) and improvements along Bartlett Street within the development sequence area.

The remaining development in sequence 4 will consist principally of the renovation of the historic Dudley School and some new housing in the north portion. This development which will transform the Dudley School building into a non-school, but public, use will depend upon the possible relocation of the existing school facility into a new elementary school in the Campus High project area. This sequence would thus complete the total development of the square and hence its revitalization.

F. Proposed Development Plan

The development sequence and strategy have provided the means and actions necessary to contravene the obstacles revealed in the area analysis. The nature and extent of activities generated have also been delineated. The development plan, which is representative of the development concept and development sequence and strategy, can be seen in Appendix 35 and its three-dimensional sketch in Appendix 36. The revised vehicular traffic pattern is depicted in Appendix 37. The implementation of this plan will provide the revitalization necessary for the square and will do so in keeping with the premises - historical, economic and social, - established.

G. Retail Market Analysis

As indicated in the previous section a food market has been proposed as the initial principle magnet or activity generator in the revitalization of the square. The purpose of this analysis is to validate the existence of market for this facility and to provide a measurement of the scope of its operation. As has been initially indicated, the Highland Park population evidenced a decline of approximately 31 percent during the ten-year period, 1960 - 1970. Indications are that this declination has "dipped", basic stabilization has occurred and due to recent and impending development projects the population will be on the incline. Urban populations tend to undergo dynamic shifts, negative or positive, and these projected movements have significant impact on market analyses. While recognizing this parameter the methodology of this analysis will proceed on the basis of the population and its characteristics existing in 1970 as determined by U.S. census data, will accept the stipulation of no further decline and will not attempt to project the future inclination and its impact. In this particular case, future inclination of population and positive changes in the demographic characteristics of the population will be considered as premiums to the market established.

The research steps and methodology of the analysis consisted of the following distinct steps:²⁵

- a) determination of market trade areas;
- b) determination of demographic profile of market trade areas;
- c) determination of income characteristics of market trade areas;
- d) determination of consumption allocations and expenditure patterns;
- e) determination of existing retail outlets and potential competitors;
- f) deriving a range of levels of projected sales; and
- g) determination of the nature and scope of the proposed retail to be established.

Data from the research are provided in Tables III-1 through III-5 at the end of this section and market trade area boundaries and existing retail outlets are found, respectively, in Appendices 38 and 39.

1. Market Trade Areas

Within a built up area it is accepted as a given that any retail establishments created in John Eliot Square cannot create buying power but can only fill a void that exists or preempt, by location, a portion of the existing market. Thus the first requirement is to establish boundaries that reflect either or both of the stated conditions. As indicated in Appendix 38 the overall market area is divided into two categories, primary market and secondary market.

The primary market is defined within the boundaries of Highland Park and by a maximum distance of one-half mile from the center of the square. Within Highland Park this primary market is further divided into two trade areas, "A" and "B". Trade area "A" is within $\frac{1}{4}$ mile from the square and tends to be on the forward side of the crest, topographically. Trade area "B" is within a $\frac{1}{2}$ mile radius from the square and tends to be on the opposite side of the crest.

The secondary market is defined as existing primarily beyond the Highland Park boundaries at a maximum distance of $\frac{3}{4}$ mile from the center of the square. This market is further composed of five distinct trade areas. Trade area "A" is composed of a population segment of the Washington Park area along Washington Street. Trade

²⁵ Urban Land Institute, The Community Builders Handbook, 1954.

area "B" is composed of a remaining sector of Highland Park and its opposite counterpart in Washington Park, both tending to balance the other across Washington Street - both areas sloping off to the low point or dip of this street. Trade area "C" is composed of the Bromley Heath public housing project which is substantially Black in composition. Trade area "D" consists of the crest of the Mission Hill Community which tends to be composed of a middle income population. The fifth trade area, "E", is composed of that segment of the Mission Hill Public Housing project that tends to form along Tremont Street.

As indicated, the market trade area boundaries have been defined on the basis of distance from the square, topographical conditions and, partially, in terms of general income classification. Each of the trade areas have adequate vehicular access to the square. Trade area "A" in the primary market area is within adequate walking distance. Adequate cross town public transit service exists for trade areas "C" and "E" of the secondary market and for a portion of Trade "D". This same service exists for a portion of trade areas "A" and "B" of the primary market. The proposed and projected mini-bus loop system in Appendix 4 will complement the public bus system and improve the service for the primary market and link the square with Trade areas "A", "B" and "C" of the secondary market.

2. Demographic Profile

Table III-1 provides a discription of the population characteristics of both the primary and secondary markets and further broken down in terms of trade areas. The primary market tabulations include projections for the RAP-UP IIA project. The following is a summary of the market areas:

	<u>Primary Market</u>	<u>Secondary Market</u>	<u>Total Market</u>
Total Population	3,914	7,912	11,826
Percent Black	66	49	55
Number of Families	804	1,691	2,495
Black Families	517	850	1,367
Number of unrelated individuals	658	1,491	2,149
Number of Black individuals	401	543	944

Retail market standards indicate that 2,000 families are required to support the neighborhood size regional supermarket (largest retail tenant) with an average of

12,000 - 15,000 square feet of total space.²⁶ The food market projected for the square, while providing full service, is expected to be of a community-convenience nature, approximately half the overall size of a supermarket of present day size and catering to and supported by a level of some 1,000 families. As indicated in the above tabulation the primary market provides 80 percent of this number of families and the total market areas provide 2½ the number.

3. Income Characteristics

The income profile provides a means of determining total purchasing power of the market area. These tabulations by market areas and trade areas can be seen in Table III-2. Total income was derived by multiplying the number of families and number of unrelated individuals by their respective mean incomes. The following is a summary:

	<u>Primary Market</u>	<u>Secondary Market</u>	<u>Total Market</u>
Families			
Number	804	1,691	2,495
Mean Income	\$7,249	\$7,448	\$7,385
Total Income	\$5,828,196	\$12,594,568	\$18,425,575
Unrelated Individuals			
Number	658	1,491	2,149
Mean Income	\$3,505	\$3,774	\$3,690
Total Income	\$2,306,290	\$5,627,034	\$7,929,810

4. Consumption Allocations and Expenditure Patterns

This step in the analysis reduces the above total incomes to expendable income for selected items of goods and services. This breakdown, or consumer budget, can be seen in Table III-3. The distribution is based upon household survey information for Boston's Black population. For this analysis and for this market area it is assumed that no substantial difference exists between Blacks and non-Blacks in terms of consumption allocations. However, the second column in the table, which indicates

26. Ibid.

expenditure patterns, is not assumed to apply to non-Blacks. That particular column indicates the amount of expenditures that Blacks tend to spend locally, an expenditure pattern that does not necessarily apply to non-Blacks. When the information in Table III-3 is applied to the total incomes in Table III-2 the sales potential for the market area can be derived.

5. Existing Retail Outlets

As stated, based upon Tables III-2 and III-3, total potential sales, by consumer item, can be determined for the market areas. However, the proposed retail activities for the square cannot be expected to attract the total sales volume in the market areas. Existing retail outlets, or competitors, must be identified. As indicated in Appendix 39, four such retail areas are identified and their nature and scope summarized as follows:

a) Dudley Square

Dudley Square is the major regional retail area in Roxbury in terms of number of outlets and general size of the area. While many of the stores are marginal and the area is congested with vehicular traffic, most consumer items are available. Retail outlets consist, in part, of super market, drug stores, variety stores, small size department store, furniture stores, jewelry, dry cleaning, etc.

b) Washington Park Shopping Mall

This retail outlet represents the shopping facility developed in conjunction with the Washington Park renewal project. The mall, at present, consists of department store, super market, variety store and several miscellaneous smaller shops.

c) Hyde Square

The Hyde Square retail area is composed partly of strip commercial along Centre Street that culminates in the Square proper. The major retail outlet is a super market. Other outlet types include drug store, hardware, specialty, dry cleaning, etc.

d) Brigham Circle

Like Hyde Square, this remaining retail area is composed of strip commercial along Tremont Street and Huntington Avenue and culminating in the square proper. Much of the outlets along Tremont are on the decline or have closed. The retail area includes two super markets, drug store, specialty shops, etc.

6. Projected Sales

Projected sales are based upon relating total income to consumption allocations and expenditure patterns to determine total sales per consumer item and then projecting the amount of total sales to be attracted by the proposed retail outlets in the square given the existing competitors identified. The projections are based, in general, upon the following basic criteria:

- a. Car ownership tends to be low and consumers will tend to shop at retail outlets of closest distance given equal quality of goods, facilities and management.
- b. Given criterion a. consumers will tend to shop at outlets with best promotional qualities and competitive prices.
- c. Given criteria a and b consumers prefer to shop locally.
- d. Consumers tend to move toward, rather than away from the most dominant retail center.
- e. Drawing power is dependent upon accessibility and convenience to private and public transportation.
- f. Consumers will walk relatively short distances to outlets satisfying criteria a and b.
- g. Black consumers, as indicated in Table III-3, prefer to shop locally.

Based upon the above criteria annual sales volumes are projected for four retail outlet types, grocery store, or mini-market, drug store, variety store and restaurant and are indicated in Table III-4. The projected sales are sub-divided by Black consumer and non-Black consumer.

As previously indicated, the primary market is defined within Highland Park boundaries. For trade area "A" in the primary market, at a radius of $\frac{1}{4}$ mile, it is projected that 75 percent of the sales provided by Black consumers will be attracted and 10 percent of the non-Black consumers. The non-Black percentage is based upon the nature of sales presently experienced by the RAP drug store now in the square which tends to be 15 percent non-Black. For trade area "B" in the

primary market, at a radius of $\frac{1}{2}$ mile, it is projected that 50 percent of the sales provided by Black consumers will be attracted and 5 percent of the non-Black consumers. The total for the two trade areas defines the primary market projected sales which can be seen on the second page of Table III-4.

The same procedure was used to determine the projected sales for the secondary market. Again, the experience of the RAP drug store was used but in this case also for Black consumers. The record of the Drug Store indicates that 15 percent of total sales come from consumers outside of Highland Park. The projections for the trade areas, based upon the drug store data, vary from 5 to 15 percent depending upon distance from John Eliot Square. The projected sales for the secondary market can be seen on page 4 of Table III-4.

The summary of projected sales for the primary and secondary market can be seen on Page 4 of Table III-4. Of the total potential market a minimum of 16 percent is projected. Of the total potential Black market 30 percent is projected. These minimum market projections represent the minimum volume of sales expected at the end of the first year of operation. These projections tend to be validated by the existing sale level that the RAP drug store has attained after five months of operation (as the only viable retail outlet presently in the square). The adjusted annual sales for the drug store are presently at a level of \$108,000. For a drug store outlet in the square the market analysis projects a minimum annual sales level of \$105,621. This would indicate that the sales projections are conservative and their attainment expected and highly probable given overall revitalization of the square.

7. Nature and Scope of Market

As previously discussed, as opposed to the regional type supermarket of 12,000 to 15,000 square feet, the market proposed for the square is in the nature of the mini-market or grocery store that caters to local residents but that provides a full line of consumer items. A specific model, and others exist, would be the Folsom's market on W shington Avenue near its intersection with Massachusetts Avenue. This market, full line, consists of 5,000 square feet of sales space and 1,700 square feet of back-up space for a total of 6,700 square feet.

Table III-5 indicates the various store sizes necessary to satisfy different levels of sales for the market area. The required sales space is based upon \$161 of sales per square foot per year.²⁷ The total minimum market generates 5,358 square feet of

²⁷. Joseph DeChiara and John Hancock Callender, Editors, Time-Saver Standards for Building Types, 1973.

required sales space and 804 square feet (15%) of back-up space for a total of 6,162 square feet. Based upon the minimum Black market, 4,874 square feet of sales space is required with 731 square feet of back-up space for a total of 5,605 square feet. These projections would indicate that a food market, or grocery store, of approximately 6,000 square feet should be planned with provisions for future expansion due to the conservatism built into the sales projections coupled with the impact of the square's revitalization and the overall atmosphere to be created that is conducive to promotional qualities.

TABLE III-2 DEMOGRAPHIC PROFILE OF TRADE AREA

	Popu- lation	% Black	No. of Families	No. of Black Families	No. of Non-Black Families	No. of Unrelated Individuals	No. of Black Unrelated Individuals	No. of Non-Black Unrelated Individuals
<u>Primary Market</u>								
<u>Trade Area "A"</u>								
Tract 807	189	64	35	22	13	51	33	18
Tract 808	133	37	29	11	18	28	10	18
Tract 814	918	64	188	120	68	189	121	68
Tract 816	836	85	169	144	25	87	74	13
Totals	2,076	71	421	297	124	355	238	117
<u>Trade Area "B"</u>								
Tract 813	107	37	21	8	13	18	7	11
Tract 814	1,039	50	213	107	106	214	107	107
Tract 815	319	65	61	39	21	27	17	10
Tract 816	213	66	42	28	14	22	18	8
Totals	1,678	54	336	182	154	281	145	136
<u>RAP-UP IIA</u>	160	80	47	38	9	22	18	4
<u>(Projected)</u>								
<u>Totals</u>								
<u>Primary Market</u>	3,914	66	804	517	287	658	401	257
<u>Secondary Market</u>								
Trade Area "A"	452	91	104	95	9	49	45	4
Trade Area "B"	827	81	174	141	33	78	63	15
Trade Area "C"	1,596	87	351	305	46	137	119	18
Trade Area "D"	2,318	10	464	46	418	659	66	593
Trade Area "E"	2,719	44	598	263	335	568	250	318
<u>Totals</u>								
<u>Secondary Market</u>	7,912	49	1,691	850	841	1,491	543	948
<u>Totals</u>								
<u>Primary & Secondary Markets</u>	11,826	55	2,495	1,367	1,128	2,149	944	1,205

Source: 1970 Census of Housing and Population

TABLE III-3 INCOME CHARACTERISTICS OF TRADE AREA

	Number of Households	Number of Families	Mean Family Income	Total Family Income	Number of Unrelated Individuals	Mean Income for Unrelated Individuals	Total Income for Unrelated Individuals
Retail Market Area	3,910	2,495	\$7,385	\$18,425,575	2,149	\$3,690	\$7,929,810
Primary Market	1,238	804	7,249	5,828,196	658	3,505	2,306,290
Trade Area "A"	705	468	7,129	3,336,372	377	3,441	1,297,257
Trade Area "B"	533	336	7,410	2,489,760	281	3,590	1,008,790
Secondary Market	2,672	1,691	7,448	12,594,568	1,491	3,774	5,627,034
Trade Area "A"	131	104	7,544	784,576	49	2,939	144,011
Trade Area "B"	273	174	8,160	1,419,840	78	3,886	303,108
Trade Area "C"	428	351	5,469	1,919,619	137	3,333	456,621
Trade Area "D"	728	464	10,008	4,643,712	659	4,124	2,717,716
Trade Area "E"	1,058	598	5,853	3,500,094	568	3,736	2,122,048

Source: 1970 Census of Housing and Population

TABLE III-4 CONSUMPTION ALLOCATIONS AND EXPENDITURE PATTERNS OF BLACK FAMILIES

<u>Consumer Item</u>	<u>Percentage of Total Income</u>	<u>Percentage Spent in Immediate Neighborhood or Somewhere Else In the Black Community</u>
Food	20.0	89.0
Eating and Drinking	5.0	89.0
Drugs	2.5	87.0
Furniture and Appliances	3.0	34.0
Automobiles	7.5	5.0
Automobile Services	3.5	28.0
Apparel	4.0	30.0
Shoes	2.0	40.0
Hardware, Building Materials, Etc.	2.5	5.0
General Merchandise	10.0	90.0

Source: Boston Urban Foundation, Center City-Business and Investment Opportunities
In Central Boston, September 1969.

TABLE III-5 ANNUAL RETAIL SALES VOLUME FOR TRADE AREA

	Grocery Store	Drug Store	Variety Store	Restaurant
Primary Market ($\frac{1}{2}$ mile radius Maximum)				
<u>Trade Area "A" ($\frac{1}{2}$ mile)</u>				
<u>Black Residents</u>				
Total Potential Market	\$657,975	\$82,247	\$328,988	\$164,494
Prefer to shop locally	585,598	71,555	296,089	146,400
Minimum Black Market (75%)	439,198	53,666	222,067	109,800
<u>Non-Black Residents</u>				
Total Potential Market	268,750	33,594	134,375	67,187
Minimum Non-Black Market (10%)	26,875	3,359	13,437	6,719
Total Minimum Market				
Trade Area "A"	466,073	57,025	235,504	116,519
<u>Trade Area "B" ($\frac{1}{2}$ mile)</u>				
<u>Black Residents</u>				
Total Potential Market	\$377,843	\$47,230	\$188,922	\$ 94,461
Prefer to shop locally	336,280	41,090	170,030	34,070
Minimum Black Market (50%)	168,140	20,545	85,015	42,035
<u>Non-Black Residents</u>				
Total Potential Market	321,867	40,233	160,933	80,466
Minimum Non-Black Market (5%)	16,093	2,012	8,047	4,025
Total Minimum Market				
Trade Area "B"	184,233	22,557	93,062	46,060
<u>RAP-UP IIA</u>				
<u>Black Residents</u>				
Total Potential Market	88,492	11,061	44,246	22,123
Prefer to shop locally	78,758	9,623	39,821	19,689
Minimum Black Market (85%)	66,944	8,179	33,848	16,736
<u>Non-Black Residents</u>				
Total Potential Market	22,123	2,765	11,061	5,531
Minimum Non-Black Market (25%)	5,538	691	2,765	1,383
Total Minimum Market RAP-UP IIA	72,482	8,870	36,613	18,119

TABLE III-5 continued

	Grocery Store	Drug Store	Variety Store	Restaurant
Total Potential Primary Market	\$1,737,050	\$217,130	\$868,525	\$434,262
Total Minimum Primary Market	722,788	88,452	361,394	180,697
Total Potential Black Primary Market	1,124,310	140,538	562,155	281,077
Total Minimum Black Primary Market	674,282	82,390	377,141	168,570
<u>Secondary Market</u> (3/4 mile radius maximum)				
<u>Trade Area "A"</u>				
<u>Black Residents</u>				
Total Potential Market	169,003	21,125	84,501	42,251
Prefer to shop locally	150,413	18,379	76,051	37,603
Minimum Black Market (15%)	22,562	2,757	11,408	5,640
<u>Non-Black Residents</u>				
Total Potential Market	-	-	-	-
Total Minimum Market				
Trade Area "A"	22,562	2,757	11,408	5,640
<u>Trade Area "B"</u>				
<u>Black Residents</u>				
Total Potential Market	279,118	34,890	139,559	69,779
Prefer to shop locally	248,415	30,354	125,603	62,103
Minimum Black Market (5%)	12,421	1,518	6,280	3,105
<u>Non-Black Residents</u>				
Total Potential Market	-	-	-	-
Minimum Non-Black Market	-	-	-	-

TABLE III-5 continued

	Grocery Store	Drug Store	Variety Store	Restaurant
Total Minimum Market				
Trade Area "B"	12,421	1,518	6,280	3,105
<u>Trade Area "C"</u>				
<u>Black Residents</u>				
Total Potential Market	413,466	51,683	206,733	103,366
Prefer to shop locally	367,985	44,964	186,060	91,996
Minimum Black Market (5%)	18,399	2,248	9,303	4,600
<u>Non-Black Residents</u>				
Total Potential Market	-	-	-	-
Minimum Non-Black Market	-	-	-	-
Total Minimum Market				
Trade Area "C"	18,399	2,248	9,303	4,600
<u>Trade Area "D"</u>				
<u>Black Residents</u>				
Total Potential Market	147,229	18,404	73,614	36,807
Prefer to shop locally	131,034	16,011	66,253	32,758
Minimum Black Market (10%)	13,103	1,601	6,625	3,276
<u>Non-Black Residents</u>				
Total Potential market	1,325,057	165,632	662,528	331,264
Minimum Non-Black Market (1.5%)	19,876	2,484	16,563	8,245
Total Minimum Market				
Trade Area "D"	32,979	4,085	16,563	8,245
<u>Trade Area "E"</u>				
<u>Black Residents</u>				
Total Potential Market	494,748	61,843	247,374	123,867
Prefer to shop locally	440,326	53,803	222,637	111,318
Minimum Black Market (10%)	44,033	5,380	22,264	11,132
<u>Non-Black Residents</u>				
Total Potential Market	629,680	78,710	314,840	157,420
Minimum Non-Black Market (1.5%)	9,445	1,181	4,723	2,361
Total Minimum Market				
Trade Area "E"	53,478	6,561	26,987	13,493

TABLE III-5

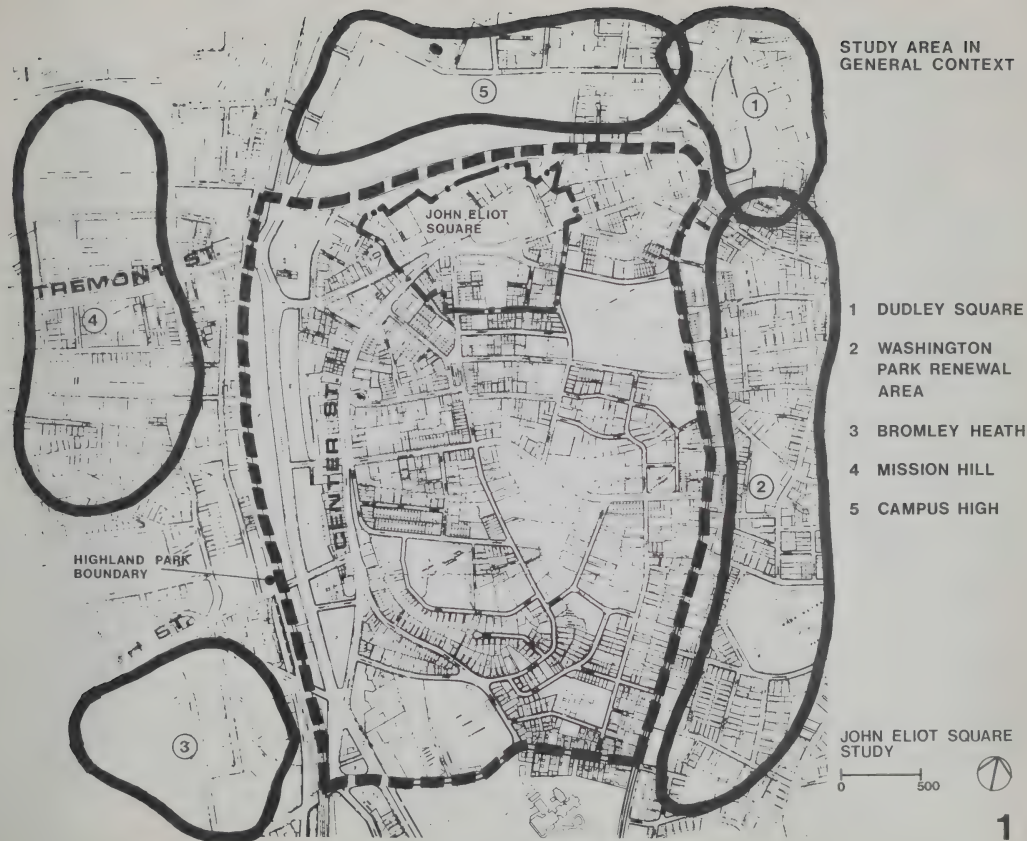
	Grocery Store	Drug Store	Variety Store	Restaurant
Total Potential Secondary Market	3,458,401	432,287	1,729,200	864,600
Total Minimum Secondary Market	139,839	17,169	69,919	34,959
Total Potential Black Secondary Market	1,503,564	187,945	751,782	375,891
Total Minimum Black Secondary Market	110,518	13,504	55,259	27,629
Summary - Primary and Secondary Markets				
Total Potential Market	5,195,451	649,417	2,597,725	1,298,862
Total Minimum Market	862,627 (16%)	105,621 (16%)	431,313 (16%)	215,656 (16%)
Total Potential Black Market	2,627,874	328,483	1,313,937	656,968
Total Minimum Black Market	784,800 (30%)	95,894 (30%)	392,400 (30%)	196,199 (30%)

TABLE III-6 GROCERY STORE SIZE

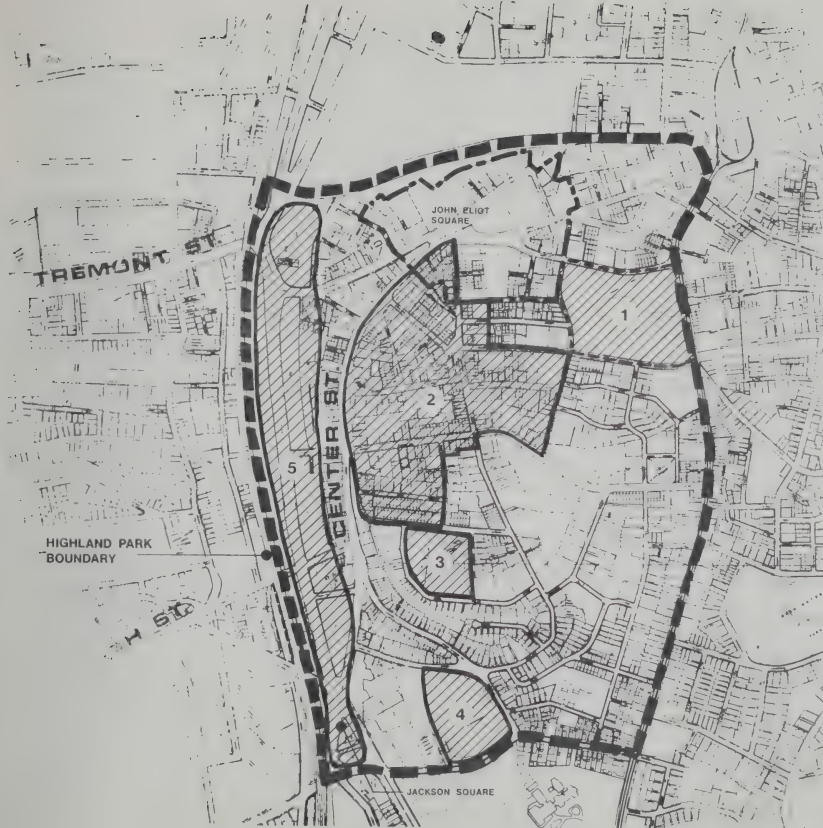
<u>Market</u>	<u>Annual Sales Volume</u>	<u>Required Square Feet</u>
Total Potential Market	\$5,195,451	32,270
Total Minimum Market	862,627	5,358
Total Potential Black Market	2,627,874	16,322
Total Minimum Black Market	784,800	4,874

APPENDICES

STUDY AREA IN
GENERAL CONTEXT



STUDY AREA IN HIGHLAND PARK CONTEXT



- 1 M.B.T.A.
- 2 KITTREDGE SQUARE RENEWAL AREA
- 3 HIGH FORT PARK
- 4 CONNOLLY PLAYGROUND
- 5 SOUTHWEST CORRIDOR STUDY AREA

JOHN ELIOT SQUARE
STUDY

0 500



AREAS OF IMPACT



1 KITTREDGE
SQUARE
RENEWAL AREA

2 HISTORICAL
SPLINE

3 SOUTHWEST
CORRIDOR STUDY
AREA

4 ROXBURY CROSSING
TRANSIT STOP

5 CAMPUS HIGH

6 DUDLEY SQUARE

JOHN ELIOT SQUARE
STUDY

0 500



TRANSIT NETWORK



- NEW ORANGE LINE**
- EXISTING TRANSIT LINE**
- MINI BUS**
- TRANSIT STOP**

JOHN ELIOT SQUARE
STUDY

0 500



STREET NETWORK



MAJOR
ARTERIAL

LOCAL
COLLECTOR

JOHN ELIOT SQUARE
STUDY

0 500



PROJECT AREA BOUNDARY



- 1 FIRST CHURCH IN ROXBURY (1804)
- 2 DILLAWAY-THOMAS HOUSE (1750)
- 3 IONIC HALL (1803)
- 4 DUDLEY SCHOOL (1873)
- 5 COX BUILDING (1865)
- 6 SPOONER-LAMBERT HOUSE (1780)
- 7 JOHN ELIOT HOTEL (1780)
- 8 MARCUS GARVEY HOUSE (1853)
- 9 PUTNAM CHAPEL (1873)

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0 100 200



EXISTING ZONING



EXISTING LAND USE



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EFFECTIVE LAND USE



**PROPERTY
OWNERSHIP**



LOCAL CONTROL OF PROPERTY



(total dollars)

(total dollars)



(dollars per sq. ft.)



A horizontal number line with arrows at both ends. It has three major tick marks labeled 0, 100, and 200. The distance between 0 and 100 is equal to the distance between 100 and 200.

**GROSS AREA
OF EXISTING
BUILDINGS**
(square feet)



EXISTING STREET PATTERN



PEDESTRIAN MOVEMENT



[illegible]

1100

1111

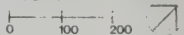
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1

EXISTING
PARKING



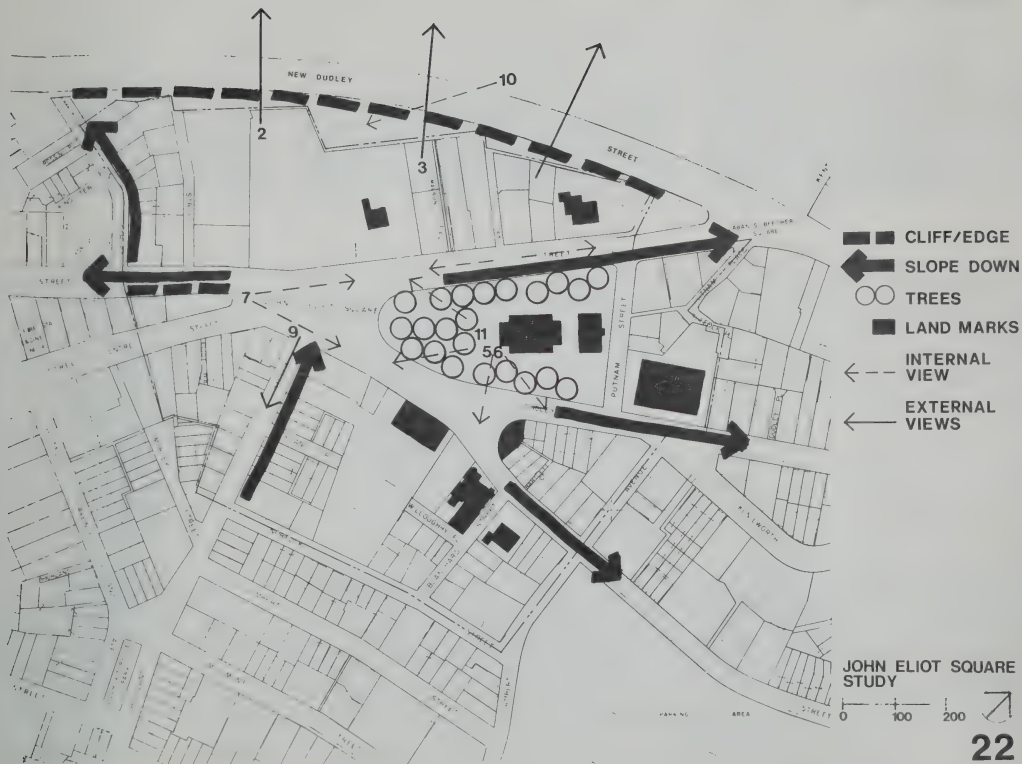
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EXISTING UTILITIES









2



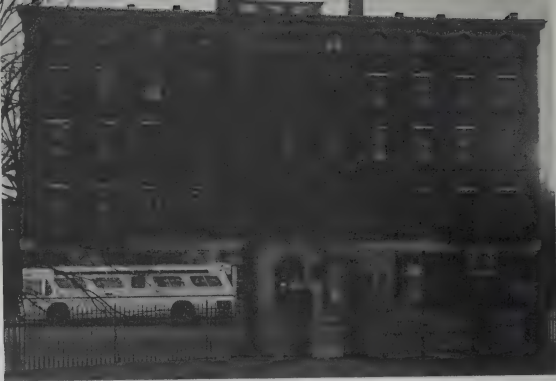
3

23





5



6

24





9



10

25



EXISTING VIALE AREAS

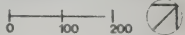


- 1 NEEDS MINOR REPAIR
- 2 TIMILTY SCHOOL
- 3 ST. JOHNS
- 4 FIRST CHURCH OF ROXBURY

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The map displays a section of New Orleans with several streets labeled: NEW DUDLEY, PUTNAM STREET, RIVINGTON STREET, CANAL STREET, and others. A central area is labeled 'RAP-UP 28 PROJECT AREA'. Seven blocks within this area are highlighted with thick black outlines and numbered 1 through 7. Block 1 is a small triangular lot. Block 2 is a large rectangular lot. Block 3 is a large rectangular lot. Block 4 is a large rectangular lot. Block 5 is a large rectangular lot. Block 6 is a large rectangular lot. Block 7 is a large rectangular lot. The map also shows various other streets and landmarks, including the 'RAP-UP 28 PROJECT AREA' label.



PROJECT AREA PARCEL		LAND			BUILDING					SUMMARY		
		TENURE	EFFECTIVE USE	PARCEL SIZE	EFFECTIVE USE	CONDITION	CONSTRUCTION	COMMUNITY	INTEREST	REHABILITATION DEVELOPMENT	CLEARANCE DEVELOPMENT	
1	a	●	●	●	●	●	●	●	●	●		
	b	●	●	●							●	
2	a	●	●	●	●	●	●	●	●	●		
	b	●	●	●								
	c	●	●	●								
	d	●	●	●								
	e	●	●	●								
	f	●	●	●								
	g	●	●	●								
	h	●	●	●								
	i	●	●	●								
	j	●	●	●								
	k	●	●	●								
	l	●	●	●								
	m	●	●	●								
	n	●	●	●								
	o	●	●	●								

PROJECT AREAS:
EVALUATION

● POSITIVE
● NEGATIVE

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PROJECT AREA PARCEL	LAND			BUILDING					SUMMARY		
	TENURE	EFFECTIVE USE	PARCEL SIZE	EFFECTIVE USE	CONDITION	CONSTRUCTION	GROSS AREA	COMMUNITY INTEREST	HISTORICAL	REHABILITATION	DEVELOPMENT
3 a b c d e f g h i											
4 a b c d e f g											

PROJECT AREAS:
EVALUATION

● POSITIVE
■ NEGATIVE

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PROJECT AREA PARCEL	LAND			BUILDING					SUMMARY		
	TENURE	EFFECTIVE USE	PARCEL SIZE	EFFECTIVE USE	CONDITION	CONSTRUCTION	GROSS AREA	COMMUNITY INTEREST	HISTORICAL	REHABILITATION	DEVELOPMENT
5											
a	●	●	●	●	●	●	●	●	●	●	●
b	●	●	●	●	●	●	●	●	●	●	●
c	●	●	●	●	●	●	●	●	●	●	●
d	●	●	●	●	●	●	●	●	●	●	●
e	●	●	●	●	●	●	●	●	●	●	●
f	●	●	●	●	●	●	●	●	●	●	●
g	●	●	●	●	●	●	●	●	●	●	●
h	●	●	●	●	●	●	●	●	●	●	●
i	●	●	●	●	●	●	●	●	●	●	●
j	●	●	●	●	●	●	●	●	●	●	●
k	●	●	●	●	●	●	●	●	●	●	●
l	●	●	●	●	●	●	●	●	●	●	●
m	●	●	●	●	●	●	●	●	●	●	●
n	●	●	●	●	●	●	●	●	●	●	●
o	●	●	●	●	●	●	●	●	●	●	●
p	●	●	●	●	●	●	●	●	●	●	●

PROJECT AREAS:
EVALUATION

● POSITIVE
● NEGATIVE

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PROJECT AREAS:
EVALUATION

PROJECT AREA
PARCEL

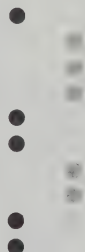
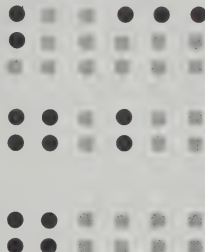
LAND
TENURE
EFFECTIVE USE
PARCEL SIZE

BUILDING
EFFECTIVE USE
CONDITION
CONSTRUCTION
GROSS AREA
COMMUNITY INTEREST
HISTORICAL

SUMMARY
REHABILITATION
DEVELOPMENT
CLEARANCE
DEVELOPMENT

6

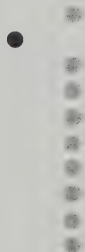
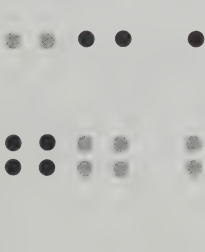
a
b
c
d
e
f
g
h
i
j



● POSITIVE
■ NEGATIVE

7

a
b
c
d
e
f
g
h
i
j



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**POTENTIAL
DEVELOPMENT
PROJECT AREAS**
(buildings to remain)





DEVELOPMENT SEQUENCE AND STRATEGY










PROPOSED STREET NETWORK



-  ARTERIAL
-  TWO-WAY TRAFFIC
-  ONE-WAY TRAFFIC

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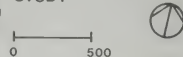
0 100 200



RETAIL MARKET
AREAS



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EXISTING MAJOR RETAIL OUTLETS AND PROJECTED STUDY AREA MARKET

JOHN ELIOT SQUARE AND RETAIL MARKET AREA

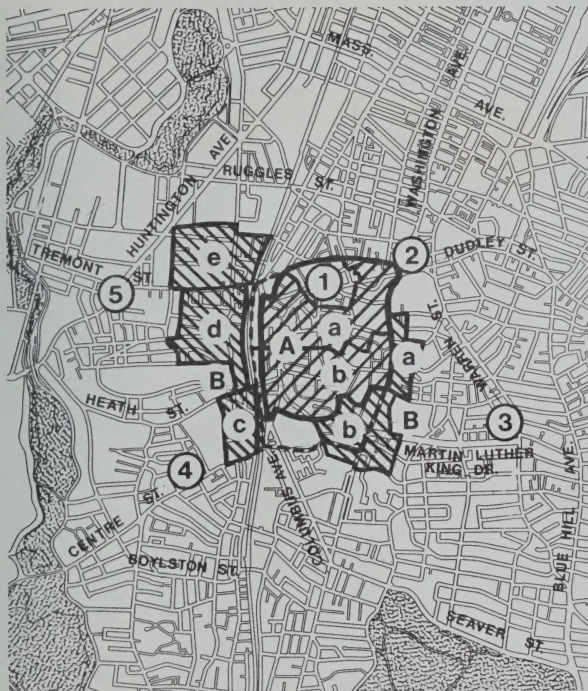
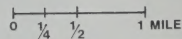
1. JOHN ELIOT SQUARE
 - A. PRIMARY MARKET AREA
 - a. TRADE AREA
 - b. TRADE AREA
 - B. SECONDARY MARKET AREAS
 - a. TRADE AREA
 - b. TRADE AREA
 - c. TRADE AREA
 - d. TRADE AREA
 - e. TRADE AREA

EXISTING MAJOR RETAIL OUTLETS

2. DUDLEY SQUARE
3. WASHINGTON PARK SHOPPING MALL
4. HYDE SQUARE
5. BRIGHAM CIRCLE

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